WHAT I HAVE DONE WITH BIRDS

GENE STRATTON-PORTER

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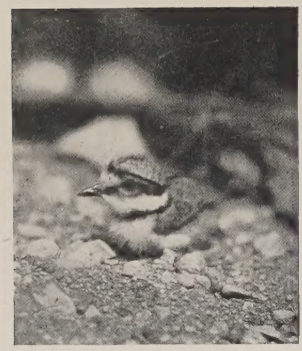

WHAT I HAVE DONE WITH BIRDS

"The kernels of nuts and the resins of trees,
The nectar distilled by the wild honey-bees,
Should be thrown in together, to flavor my words
With the zest of the woods and the joy of the birds!"

—*Thompson.*

WHAT I HAVE DONE WITH BIRDS

CHARACTER STUDIES OF NATIVE AMERICAN BIRDS WHICH,
THROUGH FRIENDLY ADVANCES, I INDUCED TO POSE
FOR ME, OR SUCCEEDED IN PHOTOGRAPHING
BY GOOD FORTUNE, WITH THE STORY OF
MY EXPERIENCES IN OBTAINING
THEIR PICTURES

By

GENE STRATTON-PORTER

Author of
The Song of the Cardinal, Freckles, etc.

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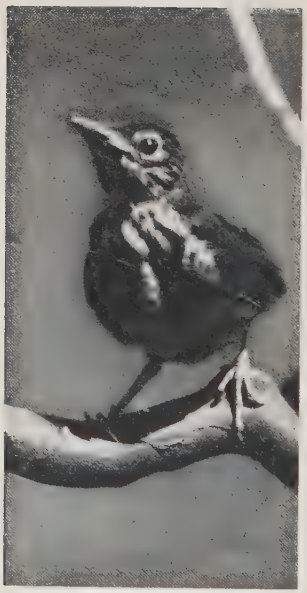

TO

BOB BURDETTE BLACK

WHO HAD A HAND IN IT

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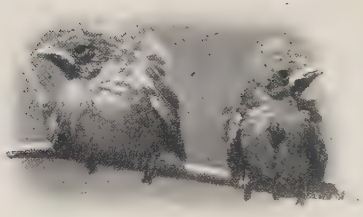

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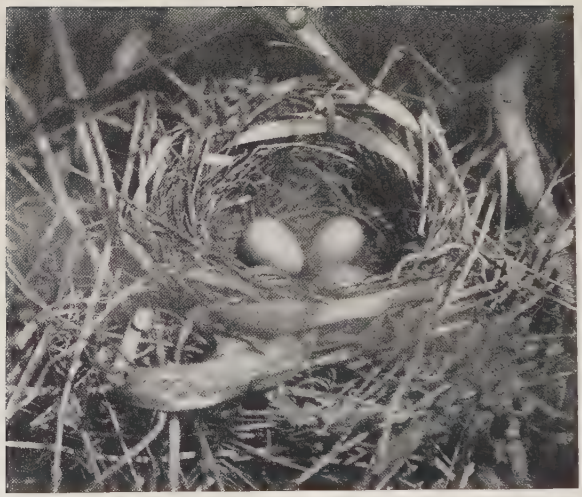

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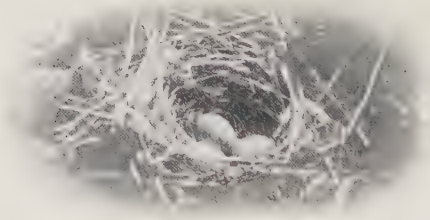


WHAT I HAVE DONE WITH BIRDS

Cried Falco Sparverius: "I chased a mouse up this log."
Hooted Scops Asio: "I chased it down a little red lane."

"The bubbling brook doth leap when I come by,
Because my feet find measure with its call;
The birds know when the friend they love is nigh,
For I am known to them, both great and small.
The flower that on the lonely hillside grows
Expects me there when spring its bloom has given;
And many a tree and bush my wanderings knows,
And e'en the clouds and silent stars of heaven."

—*Very.*

CHAPTER I

WHAT I HAVE DONE WITH BIRDS

The greatest thing possible to do with a bird is to *win its confidence*. In a few days' work about most nests the birds can be taught so to trust me, that such studies can be made as are here presented of young and old, male and female.

I am not superstitious, but I am afraid to mistreat a bird, and luck is with me in the indulgence of this fear. In all my years of field work not one study of a nest, or of any bird, has been lost by dealing fairly with my subjects. If a nest is located where access is impossible without moving it, an exposure is not attempted, and so surely as the sun rises on another morning, another nest of the same species is found within a few days, where a reproduction of it can be made.

Recently, in summing up the hardships incident to securing one study of a brooding swamp-bird, a prominent nature lover and editor said to me most emphatically, "That is not a woman's work."

"I do not agree with you," I answered. "In its hardships, in wading, swimming, climbing, in hidden dangers suddenly to be confronted, in abrupt changes from heat to cold, and from light to dark, field photography is *not* a woman's work; but in the matter of finesse in approaching the birds, in limitless patience in awaiting the exact moment for the best exposure, in the tedious and

delicate processes of the dark room, in the art of winning bird babies and parents, it is not a man's work. No man ever has had the patience to remain with a bird until he secured a real character study of it. A human mother is best fitted to understand and deal with a bird mother."

This is the basis of all my field work,—a mute contract between woman and bird. In spirit I say to the birds, "Trust me and I will do by you as I would be done by. Your nest and young shall be touched as I would wish some giant, surpassing my size and strength as I surpass yours, to touch my cradle and baby. I shall not tear down your home and break your eggs or take your naked little ones from the nest before they are ready to go, and leave them to die miserably. I shall come in colors to which you are accustomed, and move slowly and softly about, not approaching you too near until your confidence in me is established. I shall be most careful to feed your young what you feed them; drive away snakes and squirrels, and protect you in every way possible to me. Trust me, and go on with your daily life. For what small disturbance is unavoidable among you, forgive me, and through it I shall try to win thousands to love and shield you."

That I frequently have been able to teach a bird to trust me completely, these studies prove; but it is possible to go even further. After a week's work in a location abounding in every bird native to my state, the confidence of the whole feathered population has been won so that I could slip softly in my green dress from nest to nest, with not the amount of disturbance caused by the flight of a Crow or the drumming of a Woodpecker. This was proved to me when one day I was wanted at home, and a member of my family came quietly and unostentatiously, as she thought, through the wood to tell me. Every Wren began scolding. Every Cat-bird followed her with imperative questions.

WISDOM—DUSKY FALCON

"A Dusky Falcon is beautiful and most intelligent"

Every Jay was on a high perch sounding danger signals. With a throb of great joy came the realization that I was at home and accepted of my birds; this other was a stranger, and her presence was feared and rejected.

So upon this basis I have gone among the birds, seeking not only to secure pictures of them by which family and species can be told, but also to take them perching in characteristic locations as they naturally alight in different circumstances; but best and above all else, *to make each picture prove without text the disposition of the bird.* A picture of a Dove that does not make that bird appear tender and loving, is a false reproduction. If a study of a Jay does not prove the fact that it is quarrelsome and obtrusive it is useless, no matter how fine the pose or portrayal of markings. One might write pages on the wisdom and cunning of the Crow, but one study of the bird that proved it would obviate the necessity of the text. A Dusky Falcon is beautiful and most intelligent, but who is going to believe it if you illustrate the statement with a sullen, sleepy bird, which serves only to furnish markings for natural-history identification? If you describe how bright and alert a Cardinal is, then see to it that you get a study of a Cardinal which emphasizes your statements.

A merry war has waged in the past few years over what the birds know; and it is all so futile. I do not know what the birds know, neither do you, neither does any one else, for that matter. There is no possible way to judge of the intelligence of birds, save by our personal experience with them, and each student of bird life will bring from the woods exactly what he went to seek, because he will interpret the actions of the birds according to his temperament and purpose.

If a man seeking material for a volume on natural history, trying to crowd the ornithology of a continent into the working lifetime of one person, goes with a gun, shooting specimens to

articulate and mount from which to draw illustrations, he will no doubt testify that the birds are the wildest, shyest things alive, because that has been his experience with them.

If he goes with a note-book, a handful of wheat and the soul of a poet, he will write down the birds as almost human, because his own great heart humanizes their every action.

I go with a camera for the purpose of bringing from the fields and forests characteristic pictorial studies of birds, and this book is to tell and prove to you what my experiences have been with them. I slip among them in their parental hour, obtain their likenesses, and tell the story of how the work was accomplished. I was born in the country and grew up among the birds in a place where they were protected and fearless. A deep love for, and a comprehension of, wild things runs through the thread of my disposition, peculiarly equipping me to do these things.

In one season, when under ten years of age, I located sixty nests, and I dropped food into the open beaks in every one of them. Soon the old birds became so accustomed to me, and so convinced of my good intentions, that they would alight on my head and shoulders in a last hop to reach their nests with the food they had brought. Playing with the birds was my idea of fun. Pets were my sort of dolls. It did not occur to me that I was learning anything that would be of use in after years; now comes the realization that knowledge acquired for myself in those days is drawn upon every time I approach the home of a bird.

When I decided that the camera was the only method by which to illustrate my observations of bird life, all that was necessary to do was to get together my outfit, learn how to use it, to compound my chemicals, to develop and fix my plates, and tone and wash my prints. How to approach the birds I knew better than anything else.

This work is to tell of and to picture my feathered friends of

ANGER—CHICKEN-HAWK

"I once snapped a Chicken-hawk with a perfect expression of anger on his face"

the woods in their homes. When birds are bound to their nests and young by the brooding fever, especially after the eggs have quickened to life, it is possible to cultivate, by the use of unlimited patience and bird sense, the closest intimacy with them and to get almost any pose or expression you can imagine.

In living out their lives, birds know anger, greed, jealousy, fear and love, and they have their playtimes. In my field experiences I once snapped a Chicken-hawk with a perfect expression of anger on his face, because a movement of mine disturbed him at a feast set to lure him within range of my camera. No miser ever presented a more perfect picture of greed than I frequently caught on the face of a young Black Vulture to which it was my daily custom to carry food. Every day in field work one can see a male bird attack another male, who comes fooling around his nest and mate, and make the feathers fly. Did humanity ever present a specimen scared more than this Sheilpoke when he discovered himself between a high embankment and the camera, and just for a second hesitated in which direction to fly? Sometimes by holding food at unexpected angles young birds can be coaxed into the most astonishing attitudes and expressions.

I use four cameras suited to every branch of field work, and a small wagon-load of long hose, ladders, waders and other field paraphernalia.

Backgrounds never should be employed, as the use of them ruins a field study in two ways. At one stroke they destroy atmosphere and depth of focus.

Nature's background, for any nest or bird, is one of ever shifting light and shade, and this forms the atmosphere without which no picture is a success. Nature's background is one of deep shadow, formed by dark interstices among the leaves, dense thickets and the earth peeping through; and high lights formed by

glossy leaves, flowers and the nest and eggs, if they are of light color.

Nature revels in strong contrasts of light and shade, sweet and sour, color and form. The whole value of a natural-history picture lies in reproducing atmosphere, which tells the story of out-door work, together with the soft high lights and velvet shadows which repaint the woods as we are accustomed to seeing them. It is not a question of timing; on nests and surroundings all the time wanted can be had; on young and grown birds, snap shots must be resorted to in motion, but frequently, with them, more time than is required can be given. It is a question of whether you are going to reproduce *nature* and take a natural-history picture, or whether you are going to insert a background and take a sort of flat Japanese, two-tone, wash effect, fit only for decoration, never to reproduce the woods.

Also in working about nests when the mother bird is brooding, the idea is, or should be, to make your study and get away speedily; and this is a most excellent reason from the bird's side of the case as to why a background never should be introduced. In the first place, if you work about a nest until the eggs become chilled the bird deserts them, and a brood is destroyed. On fully half the nests you will wish to reproduce, a background could not be inserted without so cutting and tearing out foliage as to drive the bird to desert; to let in light and sunshine, causing her to suffer from heat, and so to advertise her location that she becomes a prey to every thoughtless passer. The birds have a right to be left exactly as you find them.

It is a good idea when working on nests of young birds, where you have hidden cameras in the hope of securing pictures of the old, and must wait some time for them to come, to remember that nestlings are accustomed to being fed every ten or fifteen minutes, and even oftener. If you keep the old ones away long, you

GREED—BLACK VULTURE

"No miser ever presented a more perfect picture of greed than I frequently caught on the face of this Vulture"

subject the young to great suffering and even death; so go to the woods prepared, if such case arise, to give them a few bites yourself. In no possible way can it hurt a young bird for you to drop into its maw a berry or worm of the kind its parents feed it, since all the old bird does, in the majority of cases, is to pick a worm or berry from the bushes and drop it into the mouth of the young.

In case you do not know what to feed a nestling, an egg put on in cold water, brought to a boil and boiled twenty minutes, then the yolk moistened with saliva, is always safe for any bird. While you are working so hard for what you want yourself, just think of the birds and what they want occasionally.

The greatest brutality ever practised on brooding birds consists in cutting down, tearing out and placing nests of helpless young for your own convenience. Any picture so taken has no earthly value, as it does not reproduce a bird's location or characteristics. In such a case the rocking of the branches, which is cooling to the birds, is exchanged for a solid location, and the leaves of severed limbs quickly wither and drop, exposing both old and young to the heat, so that your pictures represent, not the free wild life of thicket and wood, but tormented creatures lolling and bristling in tortures of heat, and trying to save their lives under stress of forced and unnatural conditions. If you can not reproduce a bird's nest in its location and environment, your picture has not a shred of historical value. My state imposes heavy fines for work of this sort and soon all others will do the same.

The eggs of almost all birds are pointed and smaller at one end than the other, and mother birds always place these points together in the center of the nest. If you wish to make a study of a nest for artistic purposes, bend the limb but slightly, so that the merest peep of the eggs shows, and take it exactly as the mother leaves it. If you desire it for historical purposes, reproduce it so that students can identify a like nest from it. Bend

the limb lower so that the lining will show, as well as outside material, and with a little wooden paddle turn at least one egg so that the shape and markings are distinct. This can not possibly hurt the egg and when the bird returns to brood she will replace it to suit herself.

If you find statements in the writings of a natural-history photographer that you can not corroborate in the writings of your favorite ornithologist, be reasonable. Who is most likely to know? The one who tries to cover the habits and dispositions of the birds of a continent in the lifetime of one person, or the one who, in the hope of picturing one bird, lies hidden by the day watching a nest? Sometimes a series of one bird covers many days, sometimes weeks, as the Kingfisher; sometimes months, as the Vulture; and sometimes years, as did the Cardinals of this book. Does it not stand to reason that, in such intimacy with a few species, much can be learned of them that is new?

All that my best authority on our native birds can say of the eggs of a Quail is that they are "roundish." He hesitates over the assertion that Cardinals eat insects, and states for a fact that they brood but once a season. No bird is so completely a seed- or insect-eater that it does not change its diet. Surely the Canaries of your cages are seed-eaters, yet every Canary-lover knows that if the bird's diet is not varied with lettuce, apple, egg and a bit of raw beefsteak occasionally, it will pull out its feathers and nibble the ends of them for a taste of meat. Chickens will do the same thing.

Certainly Cardinals eat insects, quite freely. The one lure effective above all others in coaxing a Cardinal before a lens was fresh, bright red, scraped beefsteak. Nine times out of ten this bird went where I wanted him when a dead limb set with raw meat was introduced into his surroundings. He would ven-

FEAR—SHEILPOKE

"Did humanity ever present a specimen scared more than this Sheilpoke?"

ture for that treat what he would not for his nestlings. And how his sharp beak did shear into it!

Ornithologists tell us that the diet of a Black Vulture is carrion. To reasonable people that should be construed as a general principle, and not taken to mean that if a Vulture eats a morsel of anything else it can not be a Vulture. Once during a Vulture series in the Limberlost a bird of this family in close quarters presented me with his dinner. In his regurgitations there were dark streaks I did not understand, and so I investigated. They were grass! Later I saw him down in a fence-corner, snipping grass like a Goose, and the week following his mate ate a quantity of catnip with evident relish. Then some red raspberries were placed in the door of their log and both of them ate the fruit.

In the regurgitations of a Kingfisher there can be found the striped legs of grasshoppers and the seeds of several different kinds of berries. All grain- and seed-eaters snap up a bug or worm here and there. All insect-eaters vary their diet with bugs and berries and all meat- and carrion-eaters crave some vegetable diet.

Through repeated experience with the same pairs I know that Cardinals of my locality nest twice in a season, and I believe there are cases where they do three times, as I have photographed young in a nest as late as the twenty-ninth of August. Had it not been that a pair were courting for a second mating about a nest still containing their young, almost ready to go, such a picture as this pair of Courting Cardinals never would have been possible to me. But after one brooding they became so accustomed to me that they flitted about their home, making love as well as feeding the nestlings. Repeatedly in my work I have followed a pair of cardinals from one nest to a new location a few rods away where they continued operations about a second brooding.

Neither does an authority who tells you certain kinds of birds are the same size, male and female, mean anything except that they are the same on an average. All accepted authorities state that Black Vultures are the same size. My male of the Limberlost was a tough old bird, of what age no one could guess, his eyes dim, his face wrinkled and leathery, his feet incrusted with scale, and he was almost as large as his cousin, Turkey Buzzard. His mate was a trim little hen of the previous year, much smaller and in every way fresh compared with him, but they were mated and raising their family. No ornithologist can do more than lay down the general rules, and trust to your good sense to recognize the exceptions.

There are pairs of birds in which the male is a fine big specimen, the female small and insignificant. There are pairs where the female is the larger and finer, and where they are the same size. Sometimes they conform in color and characteristics to the rules of the books and again they do not. Twice in my work I have found a white English Sparrow, also a Robin, wearing a large white patch on his coat. I once came within a breath of snapping an old Robin of several seasons with a tail an inch long. It did not appeal to me that he was a short-tailed species of Robin, —there is a way to explain all these things. The bird had been in close quarters and relaxed his muscles, letting his tail go to save his body.

A large volume could be filled with queer experiences among birds. Once I found a baby Robin that had been fed something poisonous and its throat was filled with clear, white blisters, until its beak stood wide open and it was gasping for breath. I punctured the blisters with a needle and gave it some oil, but it died. Another time I rescued a Robin that had hung five inches below its nest by one leg securely caught in a noose of horsehair, until

LOVE—CARDINAL GROSBEAKS

Male Cardinal in pursuit of a mate

the whole leg was swollen, discolored, the skin cut and bleeding, and the bird almost dead. Release was all it needed.

Again I came across a Scarlet Tanager a few days before leaving the nest, and both its eyes were securely closed and hidden by a thick plastering of feathers and filth. I took it home, soaked and washed it perfectly clean in warm milk. Its eyes were a light pink and seemed sightless. It was placed in the dark, fed carefully, gradually brought to the light and in three days it could see perfectly and was returned to its nest, sound as the other inmates.

Once I found a female Finch helpless on the ground, and discovered her trouble to be an egg so large she could not possibly deposit it, and she had left the nest and was struggling in agony. I broke the egg with a hatpin and she soon flew away, seemingly all right. With the help of a man who climbed a big tree and secured the egg of a Chicken-hawk, after the Hawk had been shot by a neighboring farmer, we played the mean trick on a Hen of having her brood on the egg of her enemy.

Another time some boys came to me with a stringy baby Sheilpoke, scarce old enough to fly, that had landed aimlessly in a ditch filled with crude oil, and the poor bird was miserable past description. Warm water, soft soap and the scrub brush ended his troubles and he was returned to the river clean, full fed and happy, I hope. Walking through the woods one Sabbath morning this spring, after a night of high wind and driving rain, I was attracted by the sharp alarm cries of a pair of Rose-breasted Grosbeaks. I followed them until almost mired in the swamp, and there, on a little tuft of grass, between pools of water and among trampling cattle, within two feet of each other, I found a male baby Grosbeak and a Scarlet Tanager, neither over five days from the shell. The Tanager nest I could not discover. The Grosbeak was in a slender oak sapling in a thicket of grape-vines. The tree was too light to bear my weight and I was not prepared

BABY GROSBEAK

for field work. To leave them meant for them to be drowned or trampled by the cattle. I carried them both home in my hands. That night I read that a young Hawk taken from his coarse nest of sticks and placed in a soft nest would die miserably, so the next morning I took a ladder and went back to the swamp. There had been some woodland tragedy other than the storm. The nest contained one baby, dead and badly abused, so I carefully cut the surrounding vines and brought the cradle home to my bird. For the next ten days, in the midst of my busiest time on this book, a stop every fifteen minutes was made to feed those youngsters a mixture of boiled potato and egg, varying with a little mashed fruit and bread and milk.

They grew beautifully. When they were large enough to fly well they were given the freedom of the conservatory, then the door was left open, and finally they were placed in an apple-tree

HILARITY— KINGFISHER

with food and water beneath. As I write they are six weeks old. Bath water is still furnished them, but they have not been fed for ten days. Both of them are flying about the orchard, clean, bright, beautiful birds. I was most anxious to keep them, the Grosbeak especially. It would have made a precious pet, but the laws of my state prohibit the caging of a song-bird, so I gradually had to accustom them to become self-supporting, take their pictures, and let them go.

YOUNG TANAGER

While working among and about birds in the nesting season I have secured these intimate studies and experiences. At any other time, when they are the wild, shy, free creatures of all outdoors, a preconceived study of them is the merest chance, and a stray snap shot, luck pure and simple. This, of course, refers to songsters. With coast and tropical birds that live in flocks it is different.

But don't let any one imagine that because he knows his natural history well, he knows anything about the camera. That is a separate and distinct study. You might as well ask a great surgeon to do X-ray work without knowing how, as to ask a scientist to judge of a natural-history photographer's work. It is possible to locate a favorite stump and photograph one or a pair of Kingfishers in the act of diving for food. It is possible by his droppings to locate a

HEN'S NEST CONTAINING EGG OF CHICKEN-HAWK

"We played the mean trick on a Hen of having her brood on the egg of her worst enemy"

Pheasant's drumming log, hide a camera and take him drumming, fighting another cock, or mating. It is possible to locate a Heron's fishing grounds and take him frogging at any time in the season. These are the things which seldom happen, and which are rare luck, but they are perfectly possible to one who has mastered the art of setting and hiding a camera and making the most of a poor plate.

I have done some of these things; but for the most part these are simple little stories of what occurs every day in field work. *What I Have Done with Birds* will tell how they were approached, to what extent their confidence was gained, and how

much time was required; it will show the studies and will explain what of courage, strength and patience they cost.

My closet contains hundreds of negatives of nests, young birds, fully feathered on the day of leaving the nest and mostly in pairs, several series from nests to grown birds, some extending over three months; and grown birds in the act of diving, bathing, flying, singing, in anger, greed, fear, taking a sun bath, and courting. I have two studies of birds when the pair were forming their partnership, one of a male bird standing sentinel beside his brooding mate, and one of a pair of Kingfishers on a stump in their favorite fishing shoal. Some of these studies were made from blinds, some with hidden covered cameras and long hose, and some with the camera in plain sight and the lens not ten feet from the subject.

In cases where nestlings are similar in form and coloring to their elders and will answer every historical purpose as well, I have preferred to use the young in pairs in these illustrations, because my heart is peculiarly tender over these plump, dainty, bright-eyed little creatures, and I fancy others will feel the same.

Every picture reproduced is of a living bird, perching as it alighted in a characteristic environment. I have no gallery save God's big workshop of field and forest, and my birds are bound by no tie save the chord of sympathy between us.

"Spirit that moves the sap in spring,
When lusty male birds fight and sing,
Inform my words and make my lines
As sweet as flowers, as strong as vines."

—*Thompson.*

CHAPTER II

The "Queen" Rail: Rallus Elegans

IN A SWAMP

HIDING AN EGG FROM SIGHT

There are particularly fine specimens among birds and animals as well as among men; and for this reason one bird no more represents the whole of its species than one man represents the whole of his race. The greatest thing ever done with a bird was to win its confidence. I have done this in the case of many brooding birds, but never to a degree surpassing this instance.

One evening one of the Faithful brought me word that seven miles east of the cabin, in a little swamp in one corner of Eli McCollum's corn-field, "a large bird brooded on a nestful of big eggs." A message like that means everything delightful to a natural-history photographer, and I could scarcely await the coming morning to be on my way. That night I dreamed of a great bird that carried me on its back across a waving green swamp and kindly poised in air above its nest while a study of its eggs was made.

Early the next morning I donned my swamp outfit, packed four cameras and started. The road wound off to the northeast

through entirely new country; there were hills and hollows to which I was not accustomed, and all May was in each intoxicating breath of spring air, in the Lark's note o'erhead, and in every whitening corner of the old snake fences outlining my way.

A passing farmer directed me to McCollum's, and, standing in my carriage, I could see a corn-field with a small swamp in one corner. I turned from the broad highway and drove up a narrow country road such as one reads of, but seldom finds. Crisp, thick grass grew to the wheel-tracks, big oaks and maples locked branches overhead, while every fence-corner was a blanket of bloom above and a carpet of bloom below.

The corn-field, mellow with alternate freezing and thawing, outlined in symmetrical rows by the brown stubble of last year's crop, green splotched with rank upspringing mullein, thistle, dog-fennel and smartweed, drowsed in the warm sunshine. It was inclosed by a snake fence, so old that it had become a thing of great beauty and most interesting. There must have been a time when that fence shone with the straw colors of newly-split timber and gave off sappy odors. Now, it was blacker than the bark of great trees that had grown from the acorns and beechnuts the squirrels had dropped in its corners; and it was hoary with the lint that wasps and Orioles love to gather in nest-building, and gay with every endless shade of gray and green that ever harmonized in the crimpled face of a lichen. There were places where the old fence stoutly bore up its load of bitter-sweet and woodbine, wild grape and blackberry; again it slid down dejectedly, as if the years were heavy upon it, and the wood, soggy with earth's dampness, grew tiny ferns, mosses and brilliant fungus.

I almost forgot the bird of which I had dreamed, in my delight over the fence. Every rail of it was a tenement. Some housed woodworms, ants and beetles; hollow ends and knot-holes sheltered brooding Linnets and Pewees; small mud-plastered

spots marked the walled-in families of boring wasps. Garter snakes, moles and field mice homed in and under the rotting bottom rails, bright green lizards liked to laze on the sunny sides of the middle ones, and sleek squirrels, with black-striped backs, flashed along the top.

In the corners on either side grew rank orchard-grass, thickly sprinkled with sweet-williams, and laughing-faced blue-eyed marys coquetted with them through the cracks. Graceful maidenhair ferns tossed their tresses from wiry stems. Bleached mandrake umbrellas, that would later unfurl shades of green to shelter cups of wax and gold, pushed stoutly through the sod. Half the corners were filled with the whiteness of wild plum and hawthorn, and the others were budding the coming snow of alder and the blush of wild roses. Papaw sheaths were bursting with the pressure of coming leaf and wine-colored bloom, and rich red and yellow buckeye buds were pursy with swelling flower and foliage.

"Mu-m-m-m-m-m-m!" came the low rumble of a swamp bird. "Gyck! Gyck!" came the answer, and the fence was forgotten. The camera I selected to use weighed forty pounds, the field was mellow and the swamp at its farthest corner. Sharp study was required to locate the nest, but at last, by just a few grass blades persistently arching *against* the wind, I found it. Then putting on my waders and carefully probing with a long tripod for each step, I entered the swamp and started toward the nest.

The birds fear noise far more than objects, so I made a long wait between steps and shifted my feet sidewise a little so as not to sink so deep in the muck that I could not get out. It was hard work to take a step, and I sank deeper and deeper on nearing the nest. Coming close I made longer pauses between steps. When I was quite close to the nest, from the heart of the swamp broke a sharp "Gyck! Gyck!"—the same cry that I had heard on

the road, and then I knew that it came from a King Rail and that this was the palace of his Queen.

She had chosen her location on a little hummock, far out in a deep pool, and so few inches above the water that when brooding she could take a drink without rising. The erection of her palace evidently had been simplicity itself. She had snipped this year's green grass from her location, sat down in the old dead, dry blades, and repeatedly turned around. Then she had gathered the dry blades she had broken off, dropped them under her and worked them down with her feet. This gave her a large, flat, bowl-shaped nest of beautiful shades of tan, yellow and brown dried-grass blades. The finishing touch was to catch the long rank-growing blades above her head, draw them together and weave them into an arch of living green.

Through its sides the brooding Rail could be seen. She was a large, splendid specimen of her species, her plumage a bright beautiful brown, with little V-shaped markings of white over her back and touches of black about the wings, in the shape of black feathers twice banded with white. The top of her head was a smooth even brown with ash-colored streaks above the eyes. Her throat was a paler ash. Later I saw that her legs were slender, smooth, a pale greenish yellow, and her feet graceful, with slim toes and sharp black nails. Her beak was elegant in its symmetrical curve, with hints of red and yellow at the base, daintily cut nostrils and rich ivory tip. But the loveliest things of all were her big, wise, wonderful eyes, as she sat motionless, steadily regarding me.

As I returned her fearless gaze the thought came to me that, if the King Rail earned his royalty by personally conducting the migratory voyages of the Quail, as he was accredited with having done at the time of his coronation in early France, his mate undoubtedly was worthy of equal honors; for she was graceful,

NEST OF KING RAIL

"Through its sides the brooding Rail could be seen"

lovely, and her heart was unafraid, as royal hearts ever should be. Straightway I named her the "Queen," and our acquaintance began.

After staying quietly about her until convinced that she was not frightened, I worked my way to the bank and carried my camera into the swamp, setting it up about fifteen feet from the nest, by the use of a long water tripod, and covering it with rushes. Then with the bulb of a long hose in one hand I slowly waded toward the nest, stooping to reach under water and to cut the intervening grasses from the foreground of my picture. On nearing the nest I worked very slowly, studying every movement to make it noiseless and simple. It was not so easy, for the water was quite cold, the muck deep and sticky, and constant watching was required to avoid sinking above my waders in a net-work of muskrat burrows. In my absorption I forgot how nearly I was approaching the nest, and suddenly there came between the grasses a flash of ivory, and a red stain spread on my bared arm.

I almost cried aloud for pure joy. Every second I had looked for my "Queen" to flatten her feathers and dart into a well-defined little runway, that could be detected leading off from one side of the nest into the swamp. But this was pure glory. She was a fighter. She would stay. Talk about excitement! My hair pricked my head and my heart muffled up in my throat as I stooped low, and slowly and carefully parted and bent back the grasses of the nest, while the "Queen" peppered me without mercy. My hands and arms were seeping blood in twenty-three places when the nest was opened to my satisfaction, and the "Queen" had not budged to leave it when I finished the exposure and closed it again.

Every day for seven days I slipped into the swamp, set up my camera, closer and closer each time, and opened that nest.

Each day the "Queen" paid less and less heed to me. On the day that I traveled those fourteen miles for the seventh time, my camera was set with no covering at all, exactly where it was wanted, and the grasses parted widely, without the slightest protest from the bird; she did not move or open her beak, and she neither looked nor felt afraid or annoyed. Then with a slow plate and time exposure, the frontispiece of this chapter was made; a study of a bird that any hunter will tell you is one of our wildest, shyest creatures.

After changing the plate, I desired a reproduction of the nest and eggs to complete the series, and as the "Queen" would not leave I gently picked her up, being extremely careful to lift her straight above the nest, so as not to break an egg. Holding her on my breast, with her head slipped inside my blouse, that she might not be alarmed by seeing me touch her eggs, I made an exposure on her nest.

Her eggs were twelve in number, four and one-half inches around the long way and three and three-quarters at the larger end, by the best measurements I could secure and manage the "Queen" at the same time. They were of a pale ash-color, sparsely sprinkled with splotches of reddish brown and faint lavender markings that looked as if seen through a thin, oily veil. In the golden bowl with the green arch above they were exquisite.

Then I set the "Queen" back on the edge of her nest and kissed the top of her shining head in parting, for I knew what was on those plates. The grasses of her arch were closed just as nearly as she had them as was possible for me to arrange them. Everything was replaced as I found it and I hurried away, unspeakably grateful to the bird that would allow such fellowship on the part of a mortal.

Our unfamiliarity with the King Rail arises, not from the fact that it is so uncommon,—the swamps are filled with them; but because they are extremely wild and almost never take wing,

trusting to escape pursuit by flattening the feathers against the slender bodies and darting between the reeds and rushes, where dogs can not penetrate or hunters get a shot; hence the expression, "slim as a rail."

Possibly I have many rarer studies of rarer birds, but into many of them there enters an element of pure luck, over which no control can be exercised, and they were only obtained because I happened to be on the spot at the right moment, and so acquainted with the birds that I was able to snap, not for what they were doing, but for what experience had taught me they would do next. This picture was deliberate. I worked and planned for it. The bird was superb and I did not spare myself in my efforts to gain her confidence. I drove those ninety-eight miles, and dragged my muck-laden feet by the hour through the chilly swamp-water, in the hope that I should get something nearly as good. I confess I never expected to do quite so well. This study of the "Queen" Rail to me represents the high-water mark of what I have done with birds, in the way of winning their confidence.

EGGS OF KING RAIL

"His palace is in the brake
Where the rushes shine and shake;
His music is the murmur of the stream
And that leaf rustle where lilies dream."

—*Thompson.*

CHAPTER III

The Wood Thrush: Hylocichla Mustelina

IN THE VALLEY OF THE WOOD ROBIN

NEST OF WOOD ROBIN, SHOWING USE OF CAST SNAKE SKIN

I am always happy to learn the location of a pair of birds by any method, but it is pure delight to find a nest myself. For a week, on coming from field work in the evening, when crossing the levee that bridges the valley lying between the Wabash and the outlet of the Limberlost, I heard a Wood Thrush or Bell Bird singing the ecstatic passion song of mating time.

The embankment was fifteen feet high and on either side of it lay patches of swamp which grew giant forest trees and almost impenetrable thickets of underbrush. There were masses of dogwood, hawthorn, wild plum, ironwood and wild rose bushes growing beneath the big trees; grape-vines, trumpet creeper and wild ivy clambered everywhere and the ground was covered with violets, anemones, spring beauties, cowslips, and many varieties of mosses and ferns. The place was so damp, dark and cool that the cowslips were paler than is their wont and the violets grew stems a foot in length. A little creek wound a devious course through

the valley and there were many pools that lay filled throughout the summer.

In all the surrounding country, here was the one spot exactly filling the requirements of an ideal location for Wood Thrushes; and when those notes of bell-toned sweetness sounded, evening after evening, from the same tree, it was evident that somewhere in the shrubs beneath that divine singer there brooded a bright-eyed brown-coated mate to whom he was pouring out his heart in notes of tenderness and cheer.

The next morning, traveling east an hour earlier than usual and hitching my little black horse to a telephone pole on the levee, I climbed down the embankment. My way in the thicket could be made only by stooping beneath the branches and creeping between bushes, and sometimes using my hatchet to get through at all. My feet sank deep into the damp muck beneath the thick layer of dead leaves; there were many small pools to skirt and once my course changed entirely, because a great flood of a few months previous had filled the whole valley with one broad raging torrent that overwashed the levee. Lodged in underbrush were a drowned cow and some pigs.

When the tree from which my bird had sung was located I began searching about it, in an ever-widening circle, for the nest. The first thing I found was a big carp, firmly impaled at the height of my head on a thorn tree and dry as any herring—another result of the flood. My next find was the nest of a pair of Rose-breasted Grosbeaks, which defied the rules of naturalists, because they didn't build in a wild grape-vine, where grape-vines were plentiful, and they didn't build of last year's dried grape-feelers, but of sticks and twigs. Then I found the largest cecropia cocoon of my experience; in a few weeks there would emerge from it a beautiful moth; but that was so high above my head it could not be secured that morning. I got it a week

NEST OF WOOD THRUSH

"With untold patience and labor this pair had digged from the ground the roots of red raspberries and nettles and woven them into a deep cup while wet"

later and in my conservatory early in June hatched from it a moth with a wing-spread of six and three-quarter inches—the widest of the species of which I ever have heard. A Woodcock was flushed and an hour spent in searching for her nest, when I remembered that my quest was for Bell Birds, and returned to my original pursuit.

I had hunted until despairing when there was a brown flash above my head, and a Bell Bird flew over with a sharp warning chirp; then I realized I was close to his home and standing still I used my eyes to such good advantage that presently I was looking squarely into the big, liquid, startled ones of Mother Bell Bird, as she peered down from an elm thicket a little above me.

Oh, but she was a beauty! Even in her plain colors, which after all were not so plain, for her back was a rich reddish brown and her breast snowy white, with long irregular markings of black. My plan had been to locate her that morning and go my way for a day's work elsewhere; but a nest on a dry plate is worth ten in a bush, for the birds have hosts of enemies, and you never know with any certainty when you leave a nest one day that you will find it safe the next. It could be seen at a glance that there was something most unusual about this nest, for it was bright as the back of the bird that brooded on it; so I hurried to the carriage for my step-ladder to use as a tripod, and a camera, and I decided that I would bring a big one.

I felt that this was a rare find, and so it proved. The nest was the most surprisingly individual piece of bird architecture imaginable. Disdaining corn-husk, straw, and other material almost invariably chosen by their species, this pair of birds, with untold patience and labor, had digged from the ground the roots of red raspberries and nettles and woven them into a deep cup while wet. There was not a particle of lining and very little other foundation: nothing at all in the body of the nest except these

two kinds of roots. They had dried firmly as spun glass and turned to a bright terra cotta color. The long soaking the flood had given the valley made it possible for the birds to dig these roots; but how they ever broke them off the size they were is still an unsolved problem. The eggs were a Robin's delicate blue, and in their bright cradle, with the tender green of the elm thicket all about, they made a picture that has to be seen to be appreciated fully.

After making a record of the nest that was to my satisfaction, I began courting the confidence of the mother bird—truly a delightful task! Every morning and almost every evening I visited the nest, each time going a little closer, making longer waits, moving with extreme caution, lest she become frightened, and always going through the operation of setting up the ladder and a small camera in front of the nest, just to accustom her to the process; in the hope that I soon could approach near enough to make a study of her as she brooded.

Sometimes I crept into the thicket in the early morning when the bushes were heavy with dew, when the breath of night lingered in the valley and when the Bell Bird and the Grosbeak were singing chants to the rising sun. Sometimes I lingered near the nest until late evening and the woods grew very still for a time, lacking the chirp and chatter of a hundred little heads now tucked in sleep. Then night's sounds would begin to rise in a steady volume all about me. A 'coon that lived in a hollow tree near me could be heard getting ready for his nightly raid, tree-toads would sing intermittently, Whippoorwills set me shivering, and once in June a great golden *Eccles Imperialis* brushed my cheek and I had to let it go for fear pursuit would startle my bird and undo all my hours of watching with her, yet I would have given much to have captured that beautiful moth. Once while waiting near Mother Bell, climbing the ladder occasionally and softly talking

to her, I sat on a log to rest. Something touched my foot and I looked down to see a big black water-snake passing from pool to pool. It would not strike, save in self-defense; but I wonder if I shall ever learn my woodcraft sufficiently to see near me a snake, no matter how harmless, without a feeling of horror.

From the hour the mother bird felt the quickening to life of four little shell-incased bodies against her breast, she became a fanatic and my work was easy. She allowed me to make studies of her on her nest and even to stroke her wing as she brooded. I never tried to pick her up. I thought of it and wondered if it could be done, but I was afraid she might grip with her feet and carry an egg from the nest,—a thing not to be risked when there was no greater result to be accomplished than merely to prove that she could be handled.

After the nestlings hatched, they soon grew so accustomed to me that they cared not a particle whether their mother or I dropped the worms and berries into their mouths. Many interesting studies were secured of them, but not one nearly equaling a pair of the young on the day they left the nest. These babies were bright, alert and sweet, beautifully colored and very easy to coax into poses. Surely the male made as exquisite a singer as his father, and the female another brave tender-eyed mother bird.

The taking of these pictures was comparatively easy. Fighting my way through the thicket, carrying heavy cameras, dragging about a twenty-foot step-ladder for a tripod, avoiding poisonous vines, snakes and miring in muck, being stung by insects and scratched by briers was not so easy, but all that is in any real field-worker's daily life.

Here is a study of this rare and beautiful bird-home and of the pair of handsome youngsters hatched from it; but what would I not give if every one could hear the Bell Bird's exquisite notes, rolling down the valley, as he courted, comforted and guarded his

mate. All of my life I shall hear him as he would come hopping from branch to branch toward his choir-loft, tenderly questioning, "Uoli? Uoli?" Then in a burst of impassioned rapture, clear as the finest golden toned flute, "A-e-o-l-e! A-e-o-l-e! Aeolee, lee, lee!"

YOUNG BELL BIRD HIDING
UNDER LEAF

CHAPTER IV

The Barn Owl: Strix Pratincola

IN DEEP FOREST

HEAD OF BARN OWL

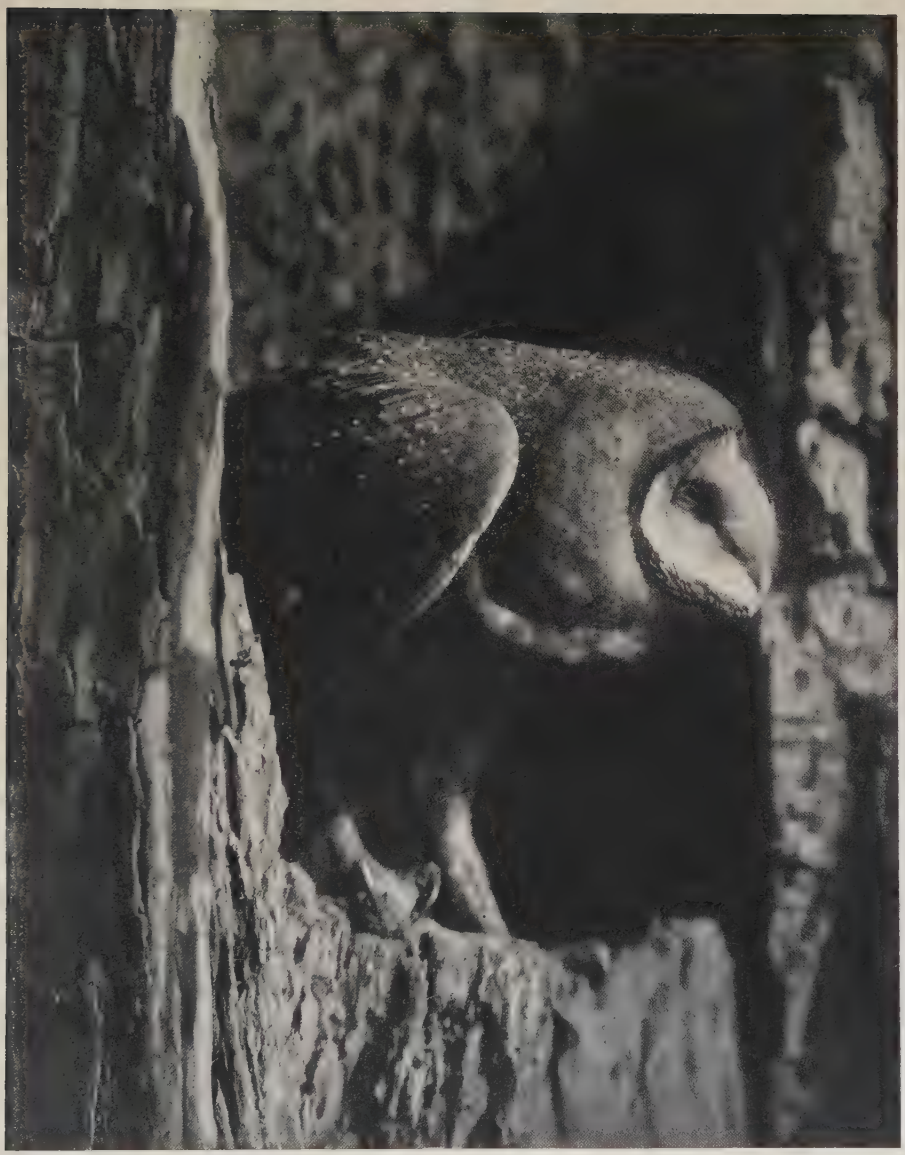
Did you ever traverse the Inland Route, before fire annihilated and lumbermen despoiled its great beauty? There was a charm in every foot of that dark, marshy old northern forest, in the little river flowing swiftly over its bed of golden sand, in the rusty, moss-covered swamps which bordered it and in the clear, cool air, perfumed with dank odors and the resin of pines.

Forests of spruce, cedar and birch locked branches across the river, among them monster trees had died and lodged at every conceivable angle in falling, the swamp on either hand was scarlet with foxfire, while curious ferns, mosses and lilies lined each bank. All about were traces where deer had been to browse and drink, clumsy bears to eat berries, fish in shallow pools and play havoc with the housekeeping of muskrat and beaver. Fancy peopled these spots with dusky-painted faces, and one could almost hear the water-dripping paddle-blades and the twang of the bow-string.

We were unusually early that year, and extremely fortunate in securing a guide who was an ardent sportsman and a lover of all wild life. Of course I was more interested than he in securing subjects for my camera, but a casual observer scarcely would have guessed it. My window on the second floor of our stopping-

place overlooked the tree-tops and gave me a view of a wide stretch of the lake, the river creeping away in the distance, the gleaming trunks of birch and the spiral tops of cedars lifting above an impenetrable tangle of interlocking trees and bushes.

Every morning a great Eagle with a golden head, either fishing or preying on water birds, hung above the lake, and how my guide and I did hunt for the nest of that bird! We never found it, but in our search we located, in a great hollow tree back of our stopping-place, a family that repaid our disappointment. If you never saw *Strix pratincola* in her chosen location, busy keeping house, then you have missed one of the rarest sights of bird-land. We named her "Monkey-face," buffoon that she was, the minute we caught sight of her, blinkingly peering from her front door to learn if it were too early to go hunting and sadly shaking her low-hung head, as if all the woes of bird-land rested heavily on her shoulders. Her face was heart-shaped, sharply outlined by several rows of crisp up-standing brown feathers and covered with white feathers lightly tinged with the pale ash and lavender which proved her a last year's bird. Her eyes were small, for an Owl, and slightly oblong. Her beak and mouth were almost hidden by long silky down. Her breast was paler than her face and touched here and there with tiny black feathers. On the top of her head began a beautiful light tan-color that took on strength as it spread over her back, wings and tail. A-top her head and across her shoulders she was thickly sprinkled with tiny black feathers tipped with white. Her primaries and secondaries were lightly barred with brown, but her tertiary and shoulder feathers were solid tan, and each seemed to end with this peculiar tipping of black and white. She had four strong toes, and her legs were bare to the first joint. Later we saw her mate, and he closely resembled her. All the difference we could note was that his face and breast were snowy white, with the same markings, and his



BARN OWL

"Blinkingly peering from her front door to learn if it were too early to go hunting"

shade of tan seemed a degree lighter. Crouching where we were we watched and waited, and soon with the soft, uncanny flight of an Owl she swept over us and away into the deep dark forest.

Investigation proved that the tree contained Owl babies, how many could not be told, but ornithologists allot to this species from three to five. They also place this bird's northern limit on a line with Rhode Island and its habitat in the south and on the coast; yet here was a true *Strix pratincola* in northern Michigan, almost a full degree above this Owl's northern limit and certainly central.

It would be the easiest thing in the world to measure the depth of that opening and remove a section from the back of the tree that would allow pictures of the young to be taken, but how was one ever to secure a camera-shot at the old ones? That was our problem and we decided to try to solve it before touching the tree to work on the babies.

The next evening we were at the tree early and again saw the Mother Owl leave it in search of food. The opening was large. We had been as noiseless as possible and concealed ourselves so well that she stood, to accustom her eyes to the light, for a length of time that would have given a fine exposure, had there been a camera at her level.

Fortunately the opening faced the east. Trees and branches could soon be cut away to get direct light, and there was another tree close, to the trunk of which a camera could be attached directly opposite the entrance. That was a day of hard work. Cleats were sawed and nailed to this tree so that we could walk up and down it like a ladder, and opposite the Owl's door a small platform was fastened on which we placed the camera and focused it on the opening. It was useless to talk of snap shots in that light, so the shutter was set at a half second on a medium plate, the long hose attached and the camera covered with bark. It so closely re-

sembled a huge knot on a tree that no bird, even with the keenest eyes, would have paid the least attention to it.

Then we waited until black night and no birds either came to or left the tree. We attributed this fact to the noise and disturbance we had made, although work was done as swiftly and quietly as possible; but there was much to do, and several trees in our way could not be felled without the inevitable crash. We decided to risk leaving the camera as it was and did not go near it again until five o'clock the next evening. About six, Mother Owl stood in her doorway, blinked her eyes, yawned, hung her head and slowly and sadly shook it back and forth as if life had no attraction for her.

Kneeling up in my anxiety, to see better through the underbrush, I snapped a twig. Mother Owl peered in my direction, listening intently, every muscle on the alert. Oh, but I was thankful for a well-oiled shutter! It might have been set at a second, for fully that length of time elapsed before she dropped her head again and shook it more depressedly than before. Then her body seemed to lift suddenly and she was gone.

"Oh, why didn't I set that shutter for a second?" I groaned. "She never moved in that length of time."

"To-morrow night we will," said my guide encouragingly.

Then we went to develop the plate. We really had Mother Owl so that the plate could be intensified into a printable one, but it greatly lacked my idea of what could be done with this subject. The next night we tried it again. We set the shutter at a second and Mother Owl flew in the middle of the exposure, which taught me that I should have used the bulb, as the impulse to flight was detected in time to have closed the shutter if it could have been done. That plate was spoiled.

The next day I had a brilliant idea. Why not close Mother Owl's door after she left at night, and keep her out until the light

was sufficiently strong to take her picture in the morning? She was feeding her young, and they would be very hungry, but not particularly hurt by a little longer fast than usual, and no doubt they would cry for food and keep her near. When she found she could not reach them she would perch close, and then, if they would cry, there was every probability that she would fly to them, even in a fairly strong light.

That day my lenses were polished like diamonds, a fresh medium plate placed in the camera, the shutter set at a bulb exposure and everything tested to see that it worked smoothly. When Mother Owl left that night, we discussed giving her until midnight to bring several rounds of food to the babies, but dared not risk it. If the Owlets were not very hungry they would not cry, and if they did not, it was almost sure their mother would not try to fly by day.

A board was nailed securely over the opening. Mother Owl returned and attacked it beak and claw. Soon her mate came, and how the two of them worked! It was almost too bad. I fancied I could see Mother Owl shaking her head when she really had some reason to shake it. My heart failed me. This was not living up to my pact. It was not treating that mother as I would be treated. I whispered to the guide to go and take away the board. It is a good thing that he was made of a little sterner stuff, for he pointed out that the young were well grown, that there was nothing happening to injure them permanently, that they were birds of prey, and that if they didn't want their pictures taken they had no business to carry about such faces to tempt us.

At times they would leave. Then they would return, sometimes together, sometimes singly, and work to get the board away. The night was clear and cool and filled with sounds. The guide repeatedly assured me that there were no snakes, and I had seen

none. Often we heard the crashing of deer, and at times the heavier passing of bear, but the guide said they were only little black fellows and should we meet they would be worse scared than we. Anyway, the guide had a rifle and both of us good revolvers.

With the dawn both birds gave up the struggle and flew away, but from their calls to each other we knew that they were very close. About six o'clock, when the good old red sun fell fairly on the opening, I nodded to the guide. Quietly as possible he slipped to the tree, climbed it and removed the board. Then he dropped inside the opening a piece of string, weighted with fresh beefsteak and a stone. As soon as he returned and everything had been still for a time, he lowered the meat and the young Owls set up a perfect clamor. I was kneeling, watching and listening with all my soul. The night had been cold, but I was wet with perspiration. The flight of Mother Owl was noiseless, but I felt her coming and signaled the guide to jerk away the meat. The string broke and the meat fell inside. She alighted with a slow sweep and as she struck, behind her I did my level best at an imitation of her babies' cry that I had been softly practising over in my throat all the night.

Instantly she paused, turned to my direction, surely for a full second, opened her eyes unusually wide to intensify her vision, then she was gone. Save for a feather she had slightly disarranged on one wing in working at the board, she seemed to me absolutely perfect.

"What makes you so white?" asked the guide, as I stared at him wildly.

"I forgot to squeeze the bulb," I sobbed, breaking down entirely, after the long strain.

"You squeezed it until your finger-nails were white," he said. "I was watching you."

"I am sure that I didn't," I urged, in the hope that he would say something in contradiction that would help me to remember.

"But you did," he said positively. "Having to tell me when to pull, trying to imitate the babies and work the bulb all at once made so much you can't remember. Can't you tell from the camera if you did?"

"Why, of course!" I cried joyously. "Get it down at once; and, dear boy, were you ever careful?"

I vow his eyes were wet as he answered, "Several times lately. You look the other way. It shall come down like a box of eggs," and it did, with the shutter closed.

My hands shook as I pushed the slide into the plate-holder, and, withdrawing the holder, wrapped it in a sheet of rubber. Before eating or sleeping I carried that plate to my boarding-house and developed it, with the guide peering over my shoulder. It was breathless work.

"Are you sure that stuff is all right?" he asked as the chemicals were measured in the beginning. A little later, "Can you see anything yet?" Then, "Would it hurt just to take a little peep now? She ought to be out enough that you can see if she really is coming." When I first held the dripping plate to the ruby lamp he shouted, "Hello, old monkeyfaced-mooneye! I knew we had you! Stopped to look back, didn't you? And just see what we got! Ginger! Ain't she a *bird?* Yessir! That's the way she looked, just exact!"

THE FACE A PERFECT HEART-SHAPE

"Mourn not for the Owl, nor his gloomy plight!
The Owl hath his share of good:
If a prisoner he be in the broad daylight,
He is lord in the dark greenwood!
We know not alway,
Who are kings by day,
But the king of the night is the bold brown Owl."

—*Barry Cornwall.*

THE KILLDEER NEST

CHAPTER V

The Killdeer: Oxyechus Vociferus

ON THE GROUND

"John has a nest for you," said a sweet-faced country woman, as she poured my second glass of buttermilk.

So many wonderful things come to me in just that simple way and my heart always gives the same old thump of delightful anticipation.

"Did he say what kind?" I questioned eagerly.

"He thinks it's one of these killdeer-crying birds. It flew up right under the horses' noses and he had to pull back hard on them to save the nest. It's in the east corn-field, where he is working. He plowed around it and drove a stake to mark the place for you. There's four eggs and she's gone back to them."

I thought intently for a moment. "One of these killdeer-crying birds." I could not remember having seen a study of the

nest of a Killdeer published, not even in a recent work devoted exclusively to bird architecture, or a reproduction of the young. I promptly hugged Mrs. Stukey, because I love these great-souled country people who save me nests, lay down their fences, offer food and a cooling drink, and try in every way to help me in work they do not always understand, merely because they like to be kind and helpful. Then I hurried to the east corn-field.

The gate from the road into the field was nailed shut, so I hitched my horse, whose original name was Ben, but, regardless of sex, since has been changed to Patience, for obvious reasons; climbed the gate and started for what looked like a stake far across the field. Part of my course lay between the weather-beaten dry weeds and the stubble of last year's crop, and the rest over freshly-plowed ground.

The open sunny field was almost a solid green in perspective, with the tender upspringing wild lettuce, silvery catnip, golden green dandelion and pale whitish burdock. The light green felt of the mullein and the rank dark green of the thistle spread everywhere in great plants which had slept securely beneath the snows and renewed their vigorous growth before the last drifts of March had passed. It occurred to me to wonder if we had learned everything about thistles and mullein it was intended we should. These plants must have been made so vigorous and so hardy for some special reason and I scarcely think we have found it.

On nearing the plowed ground a great clamor broke on my ears and I stopped, enthralled by one of the most beautiful sights conceivable. Down the field came John, the lines hanging over a plow-handle, guiding his powerful gray Percherons by his voice, a black line of swamp loam rolling up as he passed, and myriads of big birds swarming over him or fighting for place on the freshly-turned earth at his heels.

THE KILLDEER

"T'check! T'check! T'chee!" cried a whole flock of Blackbirds, the sun flashing on their iridescent satin wings and sleek heads, as they circled about or stepped gracefully along the furrow, searching for grubs. Somber-coated Crows cawed in full-fed satisfaction, and plump-breasted Robins cried "Kip, kip! Cut cut, cut!" in exultation over each juicy morsel. There was the azure flash of the Bluebird's wing as he occasionally stopped searching for nest locations along the old snake fence and in the high stumps and darted down for some small insect. There was the plaintive cry of the Killdeers, and the silver gleam of their snowy underwings and breasts as they hung over a pool, fed by wells drilled to produce oil and contrarily producing water; and Meadow Larks left their nests in the adjoining wheat-field, and from high stumps and fence riders made excursions to secure their share of the feast, returning again to proclaim the season with notes of piercing melody.

Twenty fields had been passed in the process of spring plowing that day, and a few scared birds hanging about the fences or scattering before the crack of a shot-gun were all that could be seen. There was only one John above whom they swarmed in absolute confidence; there was only one John who paused a second now and then to kick open big pieces of muck, or stooped to break it with his hands and fling the grubs to the birds. And was he not wise? Was not their trust in him, the company they were to him, and the music they made for him a soul-feast for any man? Was not every grub and worm eaten then one less to prey on his young crop later?

Long before I reached the stake set to guide me a clear, musical "Te-dit! Te-dit!" rang from a sentinel above the swamp, and straight toward me on slender stilt-legs a female Killdeer came running. Then she uttered a sharp cry and turned to the

south, directly away from the stake, limping, hopping and dragging a wing to attract my attention. That trick had been familiar to me ever since I could remember, so I went on toward the stake, and, by the small spot which John had plowed around, easily located the nest, or rather the eggs.

There was very little nest to describe. On bare earth, surrounded by a few bits of bark, corn-stalk and chips, all picked up in the immediate vicinity, lay four tan-colored eggs thickly sprinkled with dark brown and black, their sharp points nosing together so that a stiff wind could not roll them away,—a wise provision of nature in case these improvident mothers neglect to surround them by any barriers at all, as so often occurs. When a few days of sunshine had dried the black earth about the nest to the exact color of the eggs it would be impossible to distinguish it from the surroundings. I hunted a stone and drove deeper the stake which John had set up for guidance. Then arranging my camera, practically on the ground, I made a study of the eggs at once. I wanted it so much I was afraid of delay. There are times when in summing up the dangers which menace the birds from snakes, squirrels, Hawks, Crows, Jays, small animals, hunters, untaught children and the trampling and tearing of stock which are browsing, it is really a marvel that a season produces the number of young that it does.

The next thing was to make friends with Mother Killdeer. In the light of early experiences, with one brooding Killdeer in particular, I had dreamed dreams and seen visions on my way to that nest. I dreamed of becoming so well acquainted with that mother bird that she would take a cricket from my fingers and allow me to stroke her wing as she brooded, for I once had done that with a bird of her kind. I saw a vision of pictures of the brooding bird, and possibly one as she left her nest with her

young about her, for I once was so familiar with a Killdeer she would have allowed me even greater familiarity than would be required for that.

There are birds which make me feel that the title of this book should be, "What I Have *Not* Done With Birds." This Killdeer was one of my rank failures. She was a last year's bird and this was her first brooding. She was nervous and foolish. She would suffer the horses to come quite close, but the first glimpse of John would send her a gray streak across the field. I tried to accustom her to a tripod, and she bore that, but when a small camera covered with twigs was placed on it she left her eggs and would not return.

She was accustomed to the open field and deserted her nest at every device I could think of, and circled above, crying so plaintively my heart failed me and I removed the camera. She would not submit to a camera covered with a green cloth, grasses or a false stump. My experience with her did much to confirm me in my belief that it is almost impossible to work with a young bird in her first brooding. After a season or two and several nestings she matures and grows in confidence. She learns to distinguish friends from enemies and unfamiliar objects from dangers, so that work about her can be carried on with some degree of assurance, especially after her eggs have quickened.

While lying awake nights trying to concoct some scheme whereby to outwit Mother Killdeer, I was compelled to miss one day's visit to her and on going the next found only a little bare spot of earth surrounded by a few clods and chips. While I was closely investigating to see if any signs of tragedy could be found my ear caught the sweetest, faintest little silver thread of a cry conceivable from the throat of a bird baby. I glanced toward the pool and across its bare bank moved the brown and

white body of the mother, her slender legs invisible in the rapidity of motion, and behind her, almost keeping pace, a tiny ball of down also invisibly propelled.

Pursuit began. The old bird at once took wing and with eyes fast on the baby I darted here and there and ran and ran.

"Want help?" inquired my daughter from the carriage on the road.

" 'Deed I do!" I panted, running on.

Molly-cotton joined the chase. After repeated failures, we caught him. We were breathless and disheveled and he was not even "winded." He certainly was the most exquisite bird baby I ever handled. His entire covering was of the softest, silkiest down. On his head was a little tan cap, sprinkled with pepper-and-salt and having a black band and chin strap, and a white vizor. Around his throat was a broad snowy collar and a narrow black tie. His coat and the upper half of his sleeves was of the same tan with the pepper-and-salt effect, as his cap. The lower sleeve was white, separated from the upper by a black band. His vest began snowy white at the collar and shaded by delicate gradations to an exquisite salmon pink. He had a neat little long bill, long bare legs and the big prominent eyes of the nocturnal feeder, for Killdeer both feed and fly at night when they choose.

We expended what breath we had left in going into raptures over his suit, and the sweetness of his baby voice. Then Molly-cotton held the bird while a camera was set up. She placed him on the bank and I focused sharply on his head and her hands. Then I put in a quick plate, set the shutter at the one hundredth of a second and told her to let him go. He went. He had covered a rod before I had sufficiently recovered from my surprise to see that no exposure had been made and then only to realize

that a plate had been saved, for there would have been nothing on it.

No record was kept of the trials we gave him or the different methods we used. We worked two and one-half hours over him. We were bathed in perspiration, crimson in our faces, breathless, our hats lost, our clothing torn on the bushes, our hands and faces scratched, our feet bruised and twisted with the stones, and just before us that little dandy, in his elaborate suit, moved like a tiny airship, fresh as at the start. He traveled as easily as a puff of thistledown rolling before the wind.

"We can keep this up for ever—" I began.

"No, we can't," interrupted Molly-cotton. "The sun is so hot I am getting so dizzy I can't see. I'll step on him next."

She was right. We were so tired we were in danger of stumbling and hurting the bird, while he was a born runner and could keep on all day.

He had crossed one big stone repeatedly. I usually twisted my foot in going over it. I left Molly-cotton to watch the baby and focused sharply on that stone, heaping sand against it with my hands, so that he could run up on it easily. There were bushes back of it, and stones and rotten wood were piled among them until a thick wall was formed. Then a focusing cloth was staked before the camera, so that he would not run toward that, the shutter moved up to the one five-hundredth of a second and Molly-cotton asked to turn him slowly and carefully that way once again. The first time he crossed was a failure.

I manœuvered him back, and Molly-cotton turned him toward the stone again. Twice he darted past. That was stopped by blocking the path he took with pieces of wood. The fourth time Molly-cotton headed him my way, I moved closer to the stone than

before, and as the tiny legs flashed up it, I loomed so large on the other side that for just one smallest fraction of a second he hesitated. Then he went free, for in that instant I had secured his likeness.

This spring a little friend found a nest from which all the brood had gone save one, and it was so recently from the shell its down was scarcely dry; so I obtained a likeness of it before it was strong enough to stand.

BABY KILLDEER JUST FROM SHELL

Notice how the three distinct colors on him fit into the surrounding landscape

CHAPTER VI

Black Vulture: Catharista Uruba

IN THE LIMBERLOST

THE BLACK VULTURE'S FRONT DOOR

I am indebted to Otty Bolds, who owns that portion of the Limberlost selected as their happy home by the Black Vultures, for word of their location. Mr. Bolds sent a messenger to tell me that in a great hollow elm tree, of last year's felling, was a nest containing a bird baby as big as a Gosling, but white as snow, and beside it a pale blue egg heavily speckled with brown and shaped like a Hen's, but large as a Turkey's.

This was bewildering. I knew where for three years Turkey Buzzards had nested in a hollow tree on the Wabash River, on Dan Hawbaker's farm, but their eggs were cream-colored. The blue eggs sent me to sea. We had no native bird that laid the egg described. If the description were at all correct, it could only mean some stray, and strays in ornithology are extremely interesting.

On hearing of a bird that is new to me I think of Pliny's clas-

sification of species; "those that have hooked tallons, as Hawkes; or long round claws, as Hennes; or else they be broad, flat and whole-footed, as Geese," and wonder in which class the bird can be placed. I was all eagerness to see these birds, but hesitated, not because of doubts that I would go and make studies of them eventually, but because it required thinking as to how it could be accomplished. The Limberlost was my one spot of forbidden territory. A rash promise had been made never to go there, but this sounded too alluring. I immediately sought the Deacon.

"I want to take back my promise not to go to the Limberlost," I said.

"Can't release you, girlie," answered the Deacon.

We do not live long with people in this world until we discover their weak spot. One of the Deacon's is relics, specimens and curios,—first cousin to natural history.

"What a pity!" I murmured meditatively. "This is the only opportunity I ever have had to take a white baby as large as a Gosling, with a big speckled blue egg beside it, and of course I'll never have another."

"What's that!" cried the Deacon.

"How do you expect me to tell what it is, if I must not go and see?" I countered.

"When did you want to go?" questioned the Deacon.

I thought of the old adage about striking the hot iron and answered promptly, "This minute!"

"But I can't go now," said the Deacon.

"Then the blue egg will hatch and I won't get a picture of it beside the white baby. I am reliably informed that it has large dark speckles on it,—the egg, not the baby. Mr. Bolds sent a man to tell me."

"LITTLE CHICKEN"

"From Little Chicken, just before he stood to walk, I secured the study here given, which covers every possible natural history point, even the tongue"

"Umph!" muttered the Deacon and started for the stable.

My soul sang for joy as I went to pack my paraphernalia.

This was the beginning of a series of swamp-studies that is, in all probability, without an equal in natural history or photography. The Limberlost at that time was no joke. It had not been shorn, branded and tamed. There were most excellent reasons why I should not go there. Most of it was impenetrable. There had been one or two roads cut by expert lumbermen, who had located valuable trees, and a very little timber had been taken out. No one knew when tree-hunters were there, and always it had been a rendezvous for outlaws and cutthroats in hiding. The swamp was named for a man who became lost in its fastnesses and wandered about, failing to find the way out until he died of starvation. In its physical aspect it was steaming, fetid, treacherous swamp and quagmire, filled with every danger common to the central states.

A few oil-wells had been drilled near the head of the swamp, and it was over a road, cut to one of these, that we were to travel as far as a certain well. After that the way led north a quarter of a mile, and then straight east, until we came to the prostrate trunk of a giant elm, with a hollow five feet in diameter. That sounds easy but it was not. In the beginning I had to pay a lessee a dollar for the privilege of driving over the road the oil and lumbermen used. A rod inside the swamp the carriage wheels on one side mired to the hub. Another rod, I took the camera intended for use in my lap and shielded it with my arms. Every few yards I expected the light carriage we drove to be twisted to pieces. We left it at the oil-well and started on foot with an ax, hatchet and two revolvers, to find the tree.

The Deacon wore high, heavy leather boots and I wore waist-

high rubber waders. We had to cut our way before us, as the felled tree had been hollow and not worth taking out, so no road had been made to it. For two hours we searched for that log. The time was late June; there was not a breath of air stirring inside the swamp; there were steaming, fetid pools everywhere, swarms of flies, gnats, mosquitoes, and poisonous insects, masses of poisonous vines and at every step not only the ground, but the bushes about, had to be watched for rattlesnakes. The muck was so spongy we sank ankle-deep, bushes scratched and tore at us and logs we thought were solid let us down knee-deep.

An observer readily could have seen that the Deacon got his cognomen by contraries. His face was crimson, his wet clothing plastered to his shoulders and he lit one cigar after another to drive the cloud of insects from his head and neck. The portion of my body covered by rubber was in a Turkish bath and the rest was bitten until I was lumpy as a beaded pincushion, but every breath was a prayer that the Deacon would not lose his patience and give up. And he did not! Of course we had to find it after a while, when we searched like that.

I was glad that it was the Deacon who first sighted the location. He would be more interested in it if he did. When we reached the tree, a big black bird was brooding. We held a council. I must have the baby while it was a tiny baby and the blue egg if possible. A camera was set up and focused on the mouth of the log. The Deacon plunged into the swamp and started back along the trunk, tapping it gently to drive out the bird. She was to be snapped as she emerged.

The light was bad, but the experiment was worth a plate. We did not dare risk frightening the bird by doing any clearing while she was brooding. These matters must be handled delicately and

THREE-FOURTHS GROWN

"No actor could surpass him in poses"

with common sense. To cut down a tree with her watching us, in all probability meant to frighten her into creeping to the farthermost recesses of the log, where she might refuse to come out for hours. Then for the Deacon to go in and get the baby while she was there would mean to give her a fright from which she never would recover, and might result in her deserting the nest. She must be coaxed out, before any clearing to throw light on the opening was done. My eyes were fast on the log, my shaking fingers grasping the bulb. I had figured on her walking to the opening and flying from there. She came out on wing and with a rush. My shutter was set too slow for flight. There was only an indistinct swipe on my plate.

Then the Deacon entered the log, crept its length and carried out the baby and the egg in his hat, which we previously had lined with leaves. The odor was so unbearable we could work about the log only by dipping our handkerchiefs in disinfectant and binding them over our mouths and nostrils. The Deacon said there was not a trace of nest. The baby and the egg were in a little hollow in the decayed, yellow elm fiber.

The baby was cunning as possible, white and soft as a powder-puff. He had a little, quaint, leathery, black old face and the unhatched egg was a beauty, but far too light weight to contain a young bird ready to pip the shell. We at once named the baby Little Chicken after Pharaoh's Chickens of old. The Deacon placed him in the mouth of the log, exactly as he found him, while I cut away vines and fought out a footing. Then we cut down several trees and bushes to get a good light on the mouth of the log. A study was made of the location, two of Little Chicken and the egg, and one of the baby alone.

Then the Deacon crept back into the log and replaced the

baby and the egg, although we knew it would not hatch. The next morning the mother broke it and ate the contents.

The birds were Black Vultures, the pioneers of their kind in this part of the country. The female was a brilliant young bird, with fresh face and feet. The male was much larger than his mate, duller of coloring, with a wrinkled old face, and his feet and legs were incrusted with a lime-colored growth at which he bit and worked.

When we left the swamp we were so overheated that we chilled until we were compelled to wrap ourselves in the side curtains and lap-robe of the carriage, lower the top so that we sat in the sun of a hot June day, and drive at a slow walk. The Deacon turned on me with the first word he had uttered, save to ask what I next wanted done, and inquired, "Do you think that paid?"

Never in all my life was I so uncomfortable, so unspeakably miserable. I was chilling until I shook under my leather covering and so pretended not to hear him. The next morning I produced my bunch of proofs.

"Do *you* think it paid?" I asked.

The Deacon went through the proofs several times, finally selecting the best one of Little Chicken and the egg.

"That more than pays," he said succinctly. "When are we going again?"

"I want to go every day and feed Little Chicken some liver or sweetbreads and get acquainted with his parents. I want to make a study of him every three days and all I can of the old ones," I answered.

"All right!" said the Deacon.

"But you can't spare all that time," I cried in astonishment.

BLACK VULTURE

"When he was almost full-grown and only a trace of down showed about his ears, he would follow me across the swamp"

"I must," said the Deacon. "No one less careful of you than I am ever shall take you to the Limberlost."

So for weeks, until October, in fact, we watched over that baby and courted his parents. We found a dead calf in our own woods, and, putting it into a sack, we carried it into the swamp and placed it conveniently for the old ones and for me to take pictures of them. When Little Chicken was a few weeks old, without our knowledge lumbermen removed the log for a watering-trough, but sent me word where they had placed the baby. His parents were very indifferent about feeding him and I had to see to him daily. Once when I was called from town for several days he was brought to the cabin, in the back of the carriage, and a woman hired to feed him until my return, when he was taken back to the swamp. There is no way of adequately describing what we went through for that series of pictures.

The birds were friendly, the male especially, and responded beautifully to our advances. From Little Chicken just before he stood to walk, I secured the study here given, which covers every possible natural history point, even the tongue. The baby was a perfect dear to pose and in two weeks answered to his name and took food from my hand as readily as from his mother. When he was almost full-grown and only a trace of down showed about his ears, he would follow me across the swamp with his queer rocking walk, humping his shoulders and ducking his head; looking so uncanny in that dark weird place I had to set my muscles hard to keep from giving a scream and running as if for life.

The last time I saw him was late in October. He followed me to the edge of the Limberlost, and I turned and made this picture, used as a tailpiece, when his wings were raised for a sweep that carried him up to his parents. That season the Lim-

berlost yielded me the only complete series of Vulture studies ever made, dozens of studies of other birds, material for a novel, more natural history stuff than could be put into several big volumes, many rare specimens and much priceless experience in swamp work, for all of which I acknowledge my indebtedness to Mr. Bolds, to Little Chicken and to the Deacon.

HIS WINGS WERE RAISED FOR THE FLIGHT THAT FIRST CARRIED HIM UP TO HIS PARENTS

CHAPTER VII

The Loggerhead Shrike: Lanius Ludovicianus

IN FIELD TREES

The Shrikes choose open fields and sunlit distances. They settled east of the cabin, on the Stanley farm, in a scrub apple-tree beneath which four fields cornered. Mr. Bob Burdette Black told me of them, and as he appears so frequently in my bird-chronicles, a few words concerning him are appropriate.

Bob has played with birds, raised them by hand and befriended them ever since childhood. He has studied them in a half-dozen different states and he knows them well. He is the manager of a large oil-lease lying on the Wabash River where it has a strip of thicket on one side and a heavy forest on the other. He holds this position because of his love of the woods, and from Pennsylvania to Colorado he is familiar with all outdoors. When the machinery of his leases runs smoothly, Bob goes out and searches the fields, river-banks and woods for bird-nests. He locates them in large numbers and then escorts me to them, often carrying heavy cameras and ladders. More than this, when I am crowded with field work he

trains a pair of birds by setting up three sticks for a tripod, using a soap box for a camera and an old coat for a focusing cloth, until by the time I reach them they are neither man-shy nor camera-shy. His leases are covered with Martin and Bluebird boxes, shy forest birds build close to his power-houses and in the very trees under which his hammock swings.

Bob passed the Shrike corner on the way between two wells, and he told me of the enterprise in the apple-tree. There was no other tree near it. Four lines of old snake fences, bearing their usual load of treasures, crept to a meeting under its friendly boughs. Above it was a clear broad sweep of summer sky, across which birds from the woods constantly trailed in a broken line of flight to bathe and hunt food at the river. Beneath it Stanley's sleek herd, with the beringed ears denoting beasts of high degree, chewed their cuds, switched flies and welcomed the ministrations of a large flock of Cow-birds.

Subjects were located in each of those four fields. In one, under an arch of growing wheat, I had made a study of a Lark's beautiful nest and was waiting for the young to hatch. Through the adjoining clover-field Bob and I hunted ceaselessly for the nest of a Bobolink, which strutted the rod-line, playing the clown and pouring out a lilting melody that at times seemed especially improvised to mock our unavailing efforts to find his home.

At any rate the search was a delight, for the perfume of clover was heavy on the air, the drowsy hum of big bumblebees, staggering on wing with loads of gold, was a lulling sound; singing grasshoppers, beautifully colored and striped, feasted here; satin-winged butterflies wavered over the field and the Bobolink swung on the rod-line and strained his throat to produce notes sufficiently sweet to tell it all to the brooding mate we were seeking.

Once this search for the Bobolink became a terror. Early in

the morning in passing the field he flew across the road in front of me with a worm in his beak and alighted in the clover. Immediately I was over the fence, my eyes fast on the spot where the bird had disappeared. On reaching it I began circling around, searching for the nest. The clover had been blown down when at a height of eighteen inches and the tops had lifted and made a second equal growth. I was catching handfuls of clover and lifting it straight from the roots to see if the nest were hidden beneath the parts which lay on the ground.

In doing this I uncovered, not the Bobolink's nest, but the largest snake I ever have seen in freedom. Its body was thick as my upper arm and it coiled round and round in a great heap, its head on top. When the light and air struck it, the skin seemed to gather in rolls on its body, its eyes blinkingly opened and closed in a dazed fashion and an undulating movement ran the length of it.

My horror of snakes is complete. One instant I stood as if paralyzed, gazing at it; the next I started for the cabin and never stopped until it was reached. Later in the day I recovered my senses and led a guide to the spot, only to find a hollow of earth fifteen inches across, worn smooth and hard and scattered with patches of snake-skin. The snake had been in the act of shedding and by my foolishness I had missed an opportunity to take one of the greatest natural-history pictures imaginable.

One of the fields was an open meadow of short grass. A pair of cotton-tails had a burrow there which contained two normal babies and one dwarf, a mite no larger than my thumb and two weeks old. Here, attended by the Cow-birds, the cattle grazed, and occasionally, when temptation became irresistible, pushed down the fence and invaded the clover. Then how the Bobolink danced and scolded! And how I danced and scolded when the heat ruffled the temper of the leader of the herd, and, lowering his

NEST AND EGGS OF SHRIKE

great head, with a rumble like distant thunder, he came my way threateningly, and I had to gather my paraphernalia and beat a hasty retreat. In the fourth field under a protecting leaf of a thistle growing near the oats, a Chewink fed four babies, not a stone's throw from the rabbits' burrow in the adjoining field.

At the central corner of these four fields grew the little scrub apple-tree in which the Shrikes located, probably because of the myriads of grasshoppers and insects within one sweep of flight,

YOUNG SHRIKES

"In attitudes of such remarkable poise and dignity as would be hard to equal in young birds"

and it was only a short distance to wire fences decorated with wool, and the Stanley chicken yard, which furnished the lining and trimming of the nest. It was a larger structure than a Robin's.

Mother Shrike laid five grayish eggs, sprinkled with brownish ash. Father Shrike fed her as she brooded. When she went to bathe he stood sentinel and no sneaking Cow-bird imposed on his family and no thieving Crow ate of his eggs or young. Occasionally, to prove that he was more closely related to the Vireo and the Robin than to the Hawk family, Father Shrike perched on a fence-post and repeated a few notes that made the Crow laugh, drove away the Cow-birds and sent the Bobolink dancing down the rod-line with every feather awry.

The old Shrikes were very friendly and soon paid little heed to my work about them. But there is no place for pictures of them unless reproductions of their family run short. The young were marked exactly like their parents and very like them in color effect, and they were darlings. The grown birds differed in having the gray parts of the feathering a solid color, a more prominent hook on the beak, and their length of wing and tail destroyed in them the plump appearance of the babies. At a little distance no difference could be noticed except in shape.

The youngsters filled their cradle to overflowing. They were impartial and allowed Bob and me to feed them. The parts of their food they could not assimilate they regurgitated in little oblong pellets. There was no such thing as calculating the number of insects consumed in that nest in a day. The old birds kept up a steady flight and Bob and I wore ourselves out, yet the five squalling beaks were always wide open. If any baby failed to receive a morsel, it caught one of its nest-mates by the bill or wing and tried to swallow it. To watch the performance made one doubt if a baby with two sound eyes could leave the nest.

Father Shrike might have warbled all day, but he could not have effaced the Hawk-like tendencies of his brood.

Yet it is a fact that the wildest and worst dispositioned Hawk can be tamed into the most docile and obedient of pets. Young Hawks taken from a nest and raised by hand are so easily domesticated that after a few weeks of feeding they may be released and will live on the roof of a house and among the trees, coming at call.

While in the nest the baby Shrikes squalled and fought; a few days after leaving it, when foraging for themselves, they perched about the trees and fences of those fields, in attitudes of such remarkable poise and dignity as would be hard to equal in young birds.

Then what beauties they were! They had plump cunningly-shaped bodies and in the nest were the only birds I ever have seen that could lay claim to the term "dimpled." Their feathering was extremely fine and close. Next their bodies these tiny silken feathers were white, the tips shaded to palest gray very faintly touched with black. The whole effect was of a delicate whitish gray, almost invisibly mizzled with black. They had jet-black dashes running from the corners of the mouth across the eye to back of the ear, and the tail- and wing-feathers were white, touched with black exactly like their elders. They were amazingly friendly little creatures and did such cunning things. They delighted to be fed and petted and responded to friendly advances in surprising fashion.

Any one would have liked them. I was afield for character studies. Here were birds of complex character and most peculiar disposition. My task was to reproduce their varying moods. Their pictures shall prove if I succeeded in portraying in them the traits described. I pictured them over and over, in groups, singly and in pairs. Head-pieces, tail-pieces and initials were

made with them. All it required was kindness, patience and grasshoppers, to coax them into any position; but they always manifested their character. You could catch them looking very dignified, but never Dove-like.

On the whole I doubt if bird-land contains more interesting and beautiful babies. Work about them was one long picnic, with the exception of the snake and the leader of the Stanley herd. It would be delightful if all birds had the Shrikes' trusting disposition and chose their beautiful and accessible locations. They furnished subjects for some of my most characteristic work with birds, and I can still smell the clover and hear the Bobolink.

"All it required was patience and grasshoppers to coax them into any position"

"I like
The shrike,
Because, with a thorn for a guillotine,
He does his work so well and clean,
A critic keen—
A practical bird,
Whose common sense
Must be immense,
For, tell me, who has ever heard
Of such a thing
As a loggerhead shrike that tried to sing?"

—*Thompson.*

CHAPTER VIII

The Purple Martin: Progne Subis

IN THE AIR

A MARTIN DOUBLE HOUSE

For these I need make no personal search, nor tax the kindness of friends. The Purple Martins come to us. Every year at migration time they sweep up from the South and claim their preëmpted location on the windmill, and in a small bird-house east of the cabin, on the stump of a dead wild cherry. Sometimes our Wrens fail us. Sometimes our Song Sparrow crosses the line and builds in our neighbor's pear-tree. The Orioles may locate with us and they may not. The English Sparrows drive away the Flycatchers, which nest so high in the big elm we can not protect them. But three standbys never fail us; always we have Martins, Bluebirds and Robins.

Martin headquarters are on the windmill, in a big box arranged for eight families and placed on the north side of the mill just under the shelter of a small platform, above which swings the wheel. This makes a splendid location for the birds,

sheltered from sun and wind. But it is almost impossible to secure pictures of it, as the camera must always face the strong light of the east, south and west, and the mill is so high that I have as yet devised no way to get on a level with the Martin box. So every day through summer the most wonderful groupings of Martins, circling the mill or perching over the wheel and fan, tempt me but can not be obtained.

At the house on the wild cherry stump I have better luck. It is not over twenty feet high, and a wire brace running from one telephone pole to another passes very close. From the top of a twenty-foot step-ladder a camera is level with the nest and wire, the birds soon become accustomed to it, and it can be worked with a long hose from the cabin window opposite.

Last year, 1905, the weather moderated a little for a few days in the latter part of February and I was amazed to see one Purple Martin fluttering about the windmill and perching to rest on the grape arbor, looking weather-beaten and as if it were exhausted from long flight. It was scarcely to be believed, but that night the gardener said he had seen it from the stable. A few days later a tenant on the farm told me there was a Martin about his boxes on the same day. This year sharp watch shall be kept and if he comes again, I shall be convinced that the Martins send out scouts to see if their quarters are all right. My belief in this is so strong that last fall I refused to allow their box to be taken down and stored in the stable until spring, for fear a prospector should be sent to see if it were safe, find it missing, and so become discouraged and take up quarters elsewhere.

The flock arrives from the first to the fifteenth of May. The gardener empties their boxes on the first sign of their coming. They swarm all over and about the windmill and immediately the fight with the dispossessed Sparrows begins. Last year we boarded up the openings so that the Sparrows could not have the

boxes lousy and infested when the Martins arrived. That seemed to delight the Martins, but it in no way discouraged the Sparrows.

From a back porch where a rack was placed containing printing frames with which I was doing the printing of these illustrations I watched a war which I was powerless to prevent. All day long it went on. The Martins took possession of the boxes, slept there the first night and began building in a few days. When the gardener cleaned the boxes this fall he said there was scarcely anything that could be called nests,—a few dried grass-blades, pieces of strings, rags and dry leaves. There was little time for elaborate nest-building in the strenuous work of holding the fort.

Every time a Martin left a door, in rushed a Sparrow and carried away a piece of straw or string, or threw out an egg. Every time the whole Martin flock left to bathe or go food-hunting, they found a Sparrow head protruding from each door on their return. Then there was a battle royal. Seven times in one day the Martins sent a messenger to a flock occupying a larger house than mine on the premises of Colonel James Hardison four blocks away, air line. Each time the bird returned with reinforcements to the number of twenty and the Sparrows were ousted.

But if I could do nothing for our pets of the windmill, a mite of help could be given to those of the bird-house on the wild cherry stump. Day after day I mounted the step-ladder and with a bent wire tore out Sparrow nests, until finally the Sparrows gave up the house and located in a large ash tree on a line with the Martin house, facing it, and only three rods away. The Martins fought valiantly for their nests, but, with one exception, they never went to the Sparrows' location and attacked them. On the other hand, the brooding Sparrow would leave her nest, if her mate was not about to harass the Martins, and enter their box to be on hand for a fight with them every time they returned home.

The male Martin never brooded, but his other attentions to his mate seemed delicate, constant and tender. When the Sparrows became too aggressive, he spent every minute, when not bathing or food-hunting, doing sentinel duty on the telephone wire only a few feet from his front door. When one considers the tireless flight of the Martin, which seems for ever winging the air, one can not help feeling that those long stretches of watching, clinging to the hot wire, were punishment indeed.

But like the brave soldier he was, the Martin stood sentinel on the wire and I secured many good pictures of him there: pictures in which the force and strength of his character show plainly. Once I caught him when he was watching with forceful determination to guard that nest or die; and once when he was gathered for a dart and even as the shutter sprang he shot like a catapult at his enemy.

One day he proved himself a soldier indeed, by an act of strategy that human warriors have employed since time began. While he was away from home, from some pressure the female felt she must leave the nest. She came to the door and looked all about for him and called several times, but he probably was at the river, as he returned in high flight from that direction. Failing to call him to guard, after some hesitation the female left, also flying toward the river.

She was not out of sight before the Sparrow in the ash left her nest and entered the Martin house, turned around and filled the door with her head and shoulders. It was only a few seconds until Father Martin struck the wire, and from my hammock on the veranda a few feet away, screened by the wistaria, I could see the rage that shook him. He evidently thought it unwise to attack the Sparrow in his nest, so he darted to the ash, perched on the edge of the Sparrow's nest, ripped a big beakful of straw from it, and with a quick jerk of his head scattered it on the wind.

The second beakful brought the Sparrow home in a hurry. The Martin flew back to his place on the wire and executed a little triumphal demonstration. He plumed his feathers with an exaggerated swagger, that looked exactly as if he were saying:

"Oh, didn't I fix you that time!" He sprang straight up from the wire and rapidly settled again; he chattered angrily, though I never before heard him make a sound when on sentinel duty. He taught that Sparrow a lesson, for that was the last time for weeks that she entered the Martin box. She would dash at the Martins and threaten them outside, but she seemed to have learned that there was such a thing as the besieged retreating and attacking the stronghold of the enemy.

Last year six pairs of Martins raised two broods on our windmill. They averaged four, creamy-white, oblong oval eggs to the nest. After the first brood had become full grown and self-supporting, still they all forced into that box for night. When the second brood was hatched, and joined the family on wing, they could not all crowd into the box, so the elders slept on top of it in a narrow space beneath the platform of the mill. By October, then, our twelve Martins of spring, allowing four eggs to the nest and two broods to the season, had multiplied to more than forty. The Sparrows must have destroyed a good many, for I never was able to count more than thirty at one time during the fall.

However many there were, one thing was sure: they all stayed in or upon that box at night. By sundown they gathered from the forests and the river and began the preliminaries of settling. For a full hour they chattered, jabbered and circled in wide sweeps of flight around the mill. At first they would fly in a great circle almost out of sight. Then narrowing by almost imperceptible degrees after an hour, and sometimes longer on wing, they would circle closely about the box and at last one would en-

ter. After that one or two deserted the circle for the box at each round until the last bird disappeared.

I am glad to own the pictures I have of them. The coming summer, however, a box must be arranged with a hinged roof so the young ones and eggs can be reproduced. One box might be placed on the west side of the mill so that a focus could be had on it from the barn roof.

So far I have not been able to do just what is possible with Martins. I never shall unless some way is invented to exterminate English Sparrows. But I have succeeded in enticing them to build on our premises, and afforded them sufficient protection to bring out large broods. With all that flock to clean pests from our fruit trees and sift insect plagues from the air with their queer little sieve-like throats, we were almost free from mosquitoes, and what a fruit crop we had! Summer life at the cabin would not be complete without them. I like to hear their morning chatter and watch their evening flight, and the twitter with which they perform the business of living is all-day company for me.

"He spent every minute, when not bathing or food-hunting, doing sentinel duty on the telephone wire"

CHAPTER IX

The Cat-bird: Galeoscoptes Caroliniensis

IN THICKETS

YOUNG CAT-BIRD

"Guess what I have for you," commanded Bob.

"Nest of a Ha-ha bird," I ventured.

"Ha, ha! Nests of forty other birds," he retorted.

I stood and stared. Several days before I had confided to Bob that I was in trouble. I had accepted a position on the staff of an outing magazine and had contracted to furnish, during the ensuing year, at least nine natural-history articles, each illustrated with from four to ten studies of birds. At the time of making that contract I had just four pictures fit for use. So I appealed to him just to notice a little closer than usual as he passed from well to well and along the river, and mark every nest he saw for me. And this was the answer,—the answer big as the great heart of Bob. My spirits bounded sky-high. Forty

nests! Why, right there material could be secured to last me three years.

"Bob! What kinds?" I cried.

"Oh, Robins, Cat-birds, Cuckoos, Larks, Doves, Redbirds, Jays, Red-winged Blackbirds and a lot of little fine stuff of which I don't know the names."

"*A lot of little fine stuff!*" That meant Warblers, Finches, Vireos and Linnets.

"And the prettiest thing in the lot," said Bob, "the one you must get first, is the nest of just a common old Cat-bird. I never saw anything to beat it in the nest line."

That same day I started a series of drives to Bob's lease that continued every fair day throughout the season. The trip was a delight. The way lay across the levee east of the village, where every attraction of wood life was to be found growing in a tangle, and a babel of bird-song swelled early and late, led always by the Bell Bird I had pictured a few days before and now claimed as my especial property. After crossing the bridge, the green line of the river, decorated by the white bloom of hawthorn and wild plum, lay always in sight. At Bob's lease a sudden curve brought the water up to the road, and then swept it away again, leaving a pressing invitation to all and sundry to follow and learn from the Wabash itself just why people wrote poems and sang songs about it.

The lease lay on both sides of the road. On the right as you approached was the Aspy farm, where the Bobolink strutted the rod-line; adjoining it on the same side was Stanley's, where the Shrikes homed in the oak, Kingbirds in the orchard and Larks in the meadow.

On the left lay a strip of high, grassy, wooded pasture, cut into

YOUNG CAT-BIRDS

"Cat-bird nestlings are so gentle as to seem almost Dove-like"

curves by the river, on the near bank of which was the power house. Below the house and oil-tanks was a grassy old orchard running down to the water. Across the river was a deep wood, with great pools frequented by Bittern and Heron; tangles of underbrush, and forest trees of the height and size selected by Hawks and Crows. Where could be found another such Paradise for birds?

Bob did have forty nests located, and he had not worked very hard to do it. That day was spent in taking an inventory of them, going into ecstasies over their beauty, and trying to decide, by the condition of the nest and the bushes about, on which to work first, until we reached the nest of the Cat-bird—and there I stopped, lost in admiration. Without a word Bob leaped the old snake fence, crossed the orchard and started for a camera.

The nest was in a red haw thicket in a corner of the fence separating the orchard from the meadow. It was low enough to take from a tripod, there was no obstruction to prevent my setting it just where it should be placed and the light was fine. Photographic conditions could scarcely have been bettered in field work, and it was imperative to record the nest at once because browsing cattle, angered by flies, might run into the bushes and destroy it any hour.

The fence was a lichen-covered, linty, picturesque old affair; the bushes were young and newly leaved in rare shades of golden green; beautiful vines clambered everywhere, and moss, ferns and wild flowers grew beneath. The nest was built of fine twigs such as were thick underfoot in the fence corners; but somewhere in the fields about the Cat-birds had found a finely-shredded corn-husk, or one so old that they could shred it themselves, for the nest was lined with this material, bleached almost white. There

was a little dry grass also and the eggs were that exquisite deep blue-green of this species. That was the picture. No wonder Bob hurried for the camera! Of all the forty nests into which we had gazed with reverent wonder that morning, not pendent purse of Oriole, cobweb decorated cup of Vireo, living green arch of Lark or flat bowl of Quail was so beautiful as this.

Of course it couldn't wait, so I made two exposures to be sure. Then overtures to the Cat-birds began by sprinkling cracker crumbs, of which they are very fond, along the top rail of the fence. The mother bird proved how she got her name by keeping up a feline concert in the thicket. "Me-aw, me-aw, me-aw!" "Me-ow, me-ow, me-ow! 'Arry, 'arry," then insistently, "*Har*-ry, *Har*-ry!"

Making friends with her was a task. The Rubicon was a circle about three yards from her in any direction, and when you crossed it, no matter with what adroitness you made your approach, she was gone. I never got a study of her brooding. It was impossible to take it without separating the bushes and not even after her eggs had quickened could you touch her fence-corner but she would take flight.

While making these efforts my appreciation of Cat-bird music doubled and all I ever had of Cat-bird character was lost; so that in these days, the memory of those hours of watching, filled with the exquisite morning and evening song of the Cat-bird father as he perched in a topmost bough of the old apple-tree, is all that keeps me from destroying every nest I find.

He liked a big Rambo closest his location, and from a high twig the mimic copied the notes of every bird of the lease. He could do the Robin's rain-song beautifully. He reproduced the Bobolink of the rod-line, across the road, until he fooled me if he

opened his matins with that strain. He piped the lay of the Song Sparrow, and warbled like the Linnet. He could not whistle, but he could catch the "Co'cheer, co'cheer!" notes of the Cardinals across the river. In fact, traces could be detected of the notes of every bird of the orchard, meadow and forest except the Lark and the Quail.

And he mixed them all up, and worked them over, and poured them out in a continuous and ever-changing stream of melody so fast you had to do mental gymnastics to place each note. Then at times he became inspired with his own performance, his beady eyes shot gleams of light, his throat swelled its fullest and he rocked the twig he perched on and improvised a melody of his own that was a reminder of all fine wood music and a repetition of none. For this thing I forgive him much.

There was much to forgive, for among Bob's forty nests there were Blackbirds, Song Sparrows and Doves on that same stretch of fence, before it ended at the river. There were Kingbirds, Robins, Vireos, Bluebirds and Orioles in the orchard; along the river, Cardinals, Cuckoos, Warblers, Indigo Finches, Sandpipers, Grebe and Sheilpoke; and in the meadow were the Bobolink and Lark, Quail and Ground Robin. Into the home affairs of every bird of them at some point in my work came that Cat-bird with his sharp little beak and sharper black eyes. Much that I formerly had laid to the credit of my ancient enemy the Crow in reality proved to be the work of the Cat-bird.

He stole eggs from Vireo and Linnet when only two and three in a nest proved them fresh. It was so easy, while a little mother the size of a Canary was bathing or exercising, to slip to her nest, pick out a tiny, thin-shelled egg, crush it and suck up the contents. Also he was responsible for the disappearance of many

newly hatched Warblers and other birds of their size, because one day, right in the face of my lens, he darted to the nest of a Summer Yellow Bird and snatched and swallowed a baby just emerged as if it were a juicy grub.

That day I vowed I would ask Bob to shoot him. The next morning, while making studies of a pair of his own nestlings, he paid me the tribute of singing to me, as I worked, his mixed chorus of orchard, meadow and forest, almost broke my heart by the most beautiful improvisation I yet had heard from him, and ended my captivation quite by *continuing his song* while two of his young perched on my hand, instead of coming down and frightening them into a panic with his cat-calls.

So now I am a traitor to other dainty little folk I should protect, for while beyond all doubt he is responsible for much damage, every time the chance comes to tell on him and urge his partial extermination, at least, I find myself hiding his sins, and excusing his shortcomings, all because of his exquisite song.

There is small enough cause to love him. He follows me through the woods for a mile and arouses suspicion and fear in the hearts of more trusting birds by his questionings. Many weary waits with a set camera have been just at the point of fruition when a Cat-bird came mewling about, made my subject nervous by his intrusion and spoiled my picture. That should be enough to condemn him in my eyes, and it is—almost.

He is more pervasive and inquisitive than the Blue Jay, admittedly the guardian and danger-signaler of the woods. He is different from the Jay. Convince a Jay that you are a part of woodland life, that you are not shooting or making a noise or disturbance, and he will go away and let you alone, and soon you can enter his preserves with no comment from him. But a Cat-bird is

always questioning and never seems to find a satisfactory answer. He never becomes accustomed to your presence about other nests, and this seems pure perversity, for he will accept you near his own when he feels assured that you are doing no damage. If hunger-pangs or family cares did not call him strongly, he would follow me all day, watching, questioning and interfering with what was happening to other birds.

YOUNG CAT-BIRDS

"The deadnin' and the thicket's jest a-bilin' full of June,
From the rattle o' the cricket, to the yallar-hammer's tune;
And the catbird in the bottom, and the sapsuck on the snag,
Seems ef they can't—od-rot 'em!—jest do nothin' else but brag!"

—*James Whitcomb Riley.*

CHAPTER X

The Belted Kingfisher: Ceryle Alcyon

IN EMBANKMENTS

WAITING FOR LUNCH

As the cashier pushed the amount of my check under the wicket, Mr. William Hale, the bookkeeper, turned from his desk and, touching the tips of his thumbs and first fingers in an oval, asked:

"What does a hole shaped so, and running six feet back into a solid embankment, mean?"

"Is the bottom of it like this?" I questioned, picking up a pencil and drawing a line.

"Yes, it is," he answered.

"Then," I said, "it means Kingfishers. The middle curve is formed by their breasts and the side tracks by their funny little crippled feet. Where did you find a hole like that?"

"Found it on my farm while taking Helen and Mary for a walk yesterday. It is in the back wall of the old pit from which the Grand Rapids people took the gravel for the railway."

"You need a half-hour's outing," I suggested, for the gravel pit was only a mile away and my horse was at the door. The cashier happened to be the head of my family, so the matter was easily arranged and Mr. Hale and I at once drove to his farm.

The spot was beautiful, just the place for birds of all kinds. Gravel for two railroads had been taken from one little hill, the presence of which in this stretch of low country was hard to explain, for on the east lay the river, south the Limberlost, west the great ditch draining it, and north more swampy lowland. A great basin had been shoveled out from the main bed of gravel, and then veins running through it in different directions had been followed up as long as pay dirt was found. Heavy rains and drainings from the swamp had transformed these into a small lake and canals. As it all happened twenty years ago, the high parts were covered now with tall poplars and maples, the low with a beautiful fringy-leaved variety of willow, the canal and lake surrounded by cattails, bullrushes and tall swamp-grasses, and everywhere there grew luxuriant vines, and almost impenetrable thickets of wild rose, button-bush and all kinds of swamp underbrush. The river was only a quarter of a mile away and solid swamp covered the intervening space.

The back wall of the old pit was twenty feet high and faced east; about a foot and a half from the surface was the opening which had attracted Mr. Hale and his little daughters during their Sabbath walk. We cut a willow and measured the tunnel, finding it to be six feet deep. We threw light into it with a pocket mirror, but could see nothing. Mr. Hale was certain that the opening had not been there a week before, as he had been about the pit much of late, ostensibly entertaining the children, in reality, from the number of locations to which he led me, hunting bird-nests for me. I was sure that the work was fresh, for a little heap of sand and gravel that had been pushed

from the excavation lay directly beneath, not yet spread by wind and rain.

That a bird could have drilled such a tunnel seemed absolutely impossible, for the bank was hard clay, thickly intermingled with gravel and sand, and baked by the glare of the sun from earliest morning until night. Above the opening meadow-grass waved, beside it alders and willows grew, and beneath, where the last of the gravel had been taken out, flourished a large and prosperous frog-pond. One had to creep about the edges of this pond and cling to the willows, in reality, as well as dig in with his toes, to climb up to the location. We tried repeatedly, by a clear shaft of light we could throw into the far end of the tunnel, and failed to see anything except that there was a turn and a still larger opening made to the north. So we gave it up, but Mr. Hale consoled me quite by pointing out the nests of a Cuckoo and of a Summer Yellow Bird, and I found the locations of a Robin, two Cat-birds and a Purple Finch.

Work on these nests took me back to the pit daily. For three mornings I climbed to the opening and with a hand-mirror explored its interior, but to no avail. It was May; every day I found new nests here; Bob added to his forty a mile farther east; I was working on the series of Black Vultures over in the Limberlost, calling on them every day and taking their likenesses every third day, and visiting daily a half-dozen widely scattered Cardinal nests for the illustration of a book. Every day photographically possible, I was in the woods early and late, stopping at absolutely nothing that stood in the way of my work; and you well may believe with such richness of material on hand, there was little time for anything that looked unpromising.

But one day, two weeks later, when passing the embankment a Swallow came to the opening and flew away. Immediately I climbed up, and throwing in a strong ray of light with a good-

sized hand-mirror, searched the back of the tunnel. Just as I was despairing, there was thrust suddenly into the light a great scarred beak, the biggest eyes I ever had seen in the head of a bird of that size, and a flaring crest. The whole thing looked so uncanny as it flashed sharply on my vision that I jumped until I dropped the mirror and slid down into the frog-pond. But I didn't mind that. I had a brooding Kingfisher, the bird of ancient mystery, and an object of tradition in all time; whether eluding naturalists of Greece, controlling the weather of Italy or driving away evil luck and devils in Germany. I confess the brooding bird looked like a devil to me back there in the dark, and as she rushed from the nest and headed for the river, the rattle she rolled was as uncanny a sound as I ever heard from the throat of any bird, save only the loon.

What to do was the question. Go after a man and have him dig in to the back of the nest? That would give a picture of the eggs,—and no doubt destroy the nest and drive away the birds. Wait until the young hatched and try for a picture of them? That seemed the most likely to yield best results, for surely when the old were feeding they would not desert the young, even if the nest were opened at the back. Then the babies could be pictured while the old ones were away, and carefully replaced, and then, too, there was every chance that, with set cameras, shots at the old birds could be taken as they entered and left the nest. So I decided to wait. That day the bushes were carefully straightened and my tracks covered when I left. Also arrangements were made with Mr. Hale's farmer, plowing in the adjoining field, to keep an eye on the pit, and drive away small boys.

After that I haunted that location. I was there every day and, by a morning of the second week of June, with my mirror I caught two little Kingfishers peering into the light. Then I went after help. The earth was so hard that when a big strong man

set a shovel on the spot we had measured and came down on it with his foot, it curled up as if made of lead. We had to get another and use a hatchet for most of the work. We cut an opening into the tunnel, six inches from the turn to the nest, fitted a shingle to cover it, and a piece of sod to fill the hole so that it could not be noticed from the top, and I had free access to the birds. The old birds never knew it. On their return they entered the tunnel without the slightest hesitation.

I always waited until their morning feeding was done. As they have long, tedious waits on stumps and dead limbs above the water to catch the crabs and minnows which form the greater part of their diet, and always utter their rattle on returning from the river to the nest, there was plenty of time to work between their visits, and time to drop the young into the nest and cover the opening before the old ones arrived. The regurgitations proved fish, clams and crabs to be the staple of diet, though there were a few berry-seeds and occasionally the striped legs of a grasshopper.

The first time I took those babies into my lap I was wild with joy. They were the quaintest little birds I ever had handled, and the first of their kind. No wonder the snowy white eggs of the Kingfisher are so very oblong. They have to be to allow the growth of that enormous bill, for enormous it was, even on the babies. The little fellows had eyes as large in proportion as their elders, crests of blue coming, a tiny white dot before either eye, broad collars of white, steel-blue wings and backs, tail and primary wing-feathers banded with white, and white breasts touched with blue below the crop.

The old birds were exactly like them, save that the breast of the female was touched with russet where that of the male was blue. Perhaps these birds seemed just a little different to me from any others I have worked with before or since, because they

did so exactly what I hoped they would do. Still I never have seen any living or pictured Kingfishers with *quite* such heavy big beaks, such big eyes, and such flaring crests. They seemed to me larger and finer in every way; it may be imagination, but yet I am sure they were. You can compare their pictures with others you have seen, and decide for yourself.

At the first picturing of the babies, I tried twice and secured good likenesses of them. The second time, some days later and near the time when they would be going, I was assisted by Raymond Miller, a friend of mine who was born for a naturalist. While focusing on these birds I explained to Raymond that two were a small brood; frequently there were seven and eight in a family. I said to him:

"Wouldn't it be splendid if we had seven to go into this picture?"

"I don't know," answered Raymond dubiously; "if there were seven, people would get so mixed looking at all of them, they never would see how cunning just two are."

I knew that if I was ever to get snap-shots at the old birds, in all probability it would have to be while they were engrossed with family cares. I never worked harder than I did over those birds. Up one river-bank, and down the other, across the swamp and along the Limberlost ditch I followed them, until I had located fifty spots on stumps and dead branches, from which they fished every day. Then to figure on lighting, where to set a camera, where to conceal myself, whether I had the bird in range or would waste my plate if I made an exposure,—these were the next considerations.

Never was luck so surely with me. And never were pictures more due to luck, pure and simple. Of all the stumps and dead branches on which I had seen them perch, who could say on which they would alight at their next coming? It was by the merest

THE HEAD OF THE KINGFISHER FAMILY

"His great beak was scarred from tip to base by contact with stone and gravel in tunneling"

chance that I guessed it, and focused on points they visited. There was a little extra grace granted me because I did not disturb the birds while brooding, for as sure as fate I *do* have best luck when I work in ways that can not possibly injure the birds. Once I got a splendid small picture of the male fishing from a favorite spot on a dead branch along the river. He was near enough and the focus sharp enough to give the detail of every feather and to show distinctly the hard work he had done in excavating his tunnel, for his great beak was scarred from tip to base by contact with stone and gravel. He was a noble bird, as he struck that limb in front of my camera. If you want to realize, as you never did before, just how funny the bird caricatures of artists of brush and pencil are, compare some of their attempts at drawing Kingfishers with these living free birds.

I could not make a better picture than one of the female, also fishing. But it was on a stump in mid-river that I capped the climax. I pictured the female there, fishing alone, and was so delighted with the plate that I set the camera a second day to learn if by any chance I could improve it. By one of my special dispensations I took the *pair;* the female dripping as she came up from a plunge, the male with flaring crest, just an instant before he flattened it and dived.

In the thick of the series came a rare June freshet. The Limberlost rose up to meet the river, and the water crept up and up until the ditch and river were raging torrents, and all low country was under water, and I had not finished with the babies. For three days I worried, the fourth the rain stopped, the sun shone and I started with Molly-cotton to drive to the pit. We followed a short cut by way of a lane across Mr. Hale's farm, but we found the water a few inches deep over the road before we reached the Limberlost bridge. Molly-cotton was dubious, but I was determined and drove on to the bridge. Beyond it was a sight.

The water of the big ditch was running like a mill-race, and the flood covered all the fields and swamp save a few of the highest places. It was above the fences, thick with floating logs and débris. The bridge to the private ditch crossing Mr. Hale's land was anchored out in the swamp against some tree-trunks. We could not go on, and we could not turn around. We unhitched the horse, tied him to the bridge, backed the carriage off into the road, and when we thought we were far enough to miss the embankment, tried to turn it. We had not gone so far as we thought, and ran it down a steep place until the water filled half the bed and reached my best camera.

With all our might we pulled and pulled and could not budge it. Then we corralled some floating rails, laid them out to the running gear, and Molly-cotton walked them and set the camera and my waders upon the seat. Then we brought down the horse, tied the lines to the tugs and to the carriage, held up the shafts, and with Patience's help got the carriage into the road, where we harnessed and drove back.

On the road leading east from town we held a council of war and decided to drive over to the levee and prospect from there. We turned south at the first crossing, but when we came to the gate we expected to enter the water was a foot deep. That portion of the meadow lying along the ditch was all under water, but there was no current. I was doubtful about it, but Molly-cotton proposed to put on my waders and prospect. It was meadow that cattle had grazed over, I had driven over it all the spring, and she could feel her way before her, so I consented. She put on the waders, pinned up her skirts, took a water tripod and started. She wore a flaming red waist, and in the midst of that pool I saw she was attracting the attention of a cow of the Hale herd. I didn't know whether the cow would enter the water or not, but I did know Molly-cotton couldn't hurry on that soggy

ground, with those heavy waders. So I called to her to come to me just as quick as she could, that "I saw something" I wanted up the road. Whenever I "see something" all of my family fly. I knew that would bring her with all haste and still not frighten her. On came the cow.

"Hurry all you can, Molly-cotton, I am afraid it will get away! Do come faster!" I urged. She made it with mighty little margin and only saw the cow when she left the water. She said I was wise, for she couldn't have helped trying to run if she had seen it, and as the water was within three inches of the boot tops, she surely would have fallen.

Next we decided to drive through, and started. It was a treacherous journey, for the way was covered with stumps and logs beside the floating stuff. We unreined the horse and it was well we did, for half the way across the carriage was floating, we were up on the seat holding the camera, and Patience swam several rods. We struck high ground safely and drove over the ridge, confident we were on the way to the nest. When we were almost there we came to a ditch ten feet wide and six feet deep, that we had forgotten. I had hoped to reach the nest, get a picture and cross the corn-field to the road, paying for any damage we might do to the young corn. Here was another dead stop. It seemed to me I couldn't make that trip back again. I proposed to drive to the south of the ditch, try to swim the horse across and thus reach the bed of the road from which we had turned back at the bridge. This time Molly-cotton was dubious. I drove the horse down to the water, where he showed his good sense by balking for the first time in his life.

He simply wouldn't enter that water. I suppose the stiff current and the floating logs dismayed him. We had to back out and face the flood and the cow again. It was rather sickening business, and I was glad when it was safely over. After the

flood subsided I went and measured the place I had tried to drive into. It was an abrupt embankment and where I would have driven the water had been nine feet deep and the current stiff, so undoubtedly the horse saved our lives by refusing to enter.

After we left the meadow the last resort was to drive south on the road until we reached the corn-field, cross that and thus approach the quarry on its west side. We stopped to take a picture of the Kingfisher, fishing from an old fence-post; with a small camera and long distance it was, but a beautiful thing. Then we drove south. The road lay straight before us and at no place was the water over two feet deep, so we were safe there. We got into the field, then into the quarry, and were overjoyed to find our birds.

During our absence they had grown, it seemed, fully a fourth larger, the pinfeathers about the base of the beak had opened, making their faces much handsomer, the whole plumage had grown and taken on color, and the size of their eyes, beaks and crests was comical. We sat on the ground and played with them while we rested from our rough experiences.

We used special care with those studies of them, as we expected they would be the last, and in one of them we felt repaid for all our effort. But in field work one never can tell, for this was not the end. That came unexpectedly two days later. Passing the quarry with Raymond, I suggested to him that we see if the birds were gone. As we approached, there were the youngsters in the doorway, evidently meditating their first flight. They would crowd up beside each other, half lift their wings, peep down over the edge, duck back and then threaten to try again.

"Oh, Raymond!" I gasped. "*That* is my picture! There is the real natural-history picture of those birds. Fifty of them made when taken from their nest and set up somewhere are not worth that *one!* Oh, I must have that!"

YOUNG KINGFISHERS AT ENTRANCE TO NEST

"Oh, Raymond!" I gasped. "*That* is my picture! There is the real natural-history picture of those birds"

"Can't you take it?" asked Raymond.

"I must," I answered, but I did not know what I was attempting, for that picture cost me the highest price I ever paid for any study, with the exception of one landscape.

"Cover the hole with your hat until something can be found to stop it," I said. Raymond in his eagerness splashed through the frog-pond and did as he was told. A piece of sod securely stopped the opening. Then I figured on the light and where my camera must stand. Of course the location fell in the frog-pond. There was no way to place the camera, so we began carrying stumps and rotten logs to build a foundation. When we had a fairly solid basis we carried rails from the fence near-by and laid them lengthwise and then across until we had a solid platform above the water. Then I set up my tallest step-ladder, placed an eight-by-ten camera on top and focused on the opening. The camera was just right, so I put in a plate, attached the sixty-foot hose, and tossed the bulb up on the embankment.

Then I went around in front, set the shutter at a snap, and climbed up to remove the sod. Raymond crowded close behind me to help and we broke into a colony of digger wasps. They swarmed all over us. Raymond got one on his ankle and one on his arm. I had one on my arm and one down the back of my neck inside my linen collar. I do not remember that anything ever hurt me worse. It was the middle of June, our time of most intense heat; I had worked carrying rails and logs until my blood was boiling, and the sting was directly over my spine and near the base of the brain. The thing so paralyzed me that it was some time before I could move to doctor Raymond with wet clay.

I sent him into the willows in front of the nest, gave him some lunch and water, and told him to sleep or do anything save make a movement. If he happened to see the young coming he was to signal me. Then I went up on that embankment, lay

down, hung my chin over the edge and fixed my eyes on the tunnel. Fifty times the youngsters came close enough so that I could catch the gleam of their bills, but seeing the camera they crawfished. Fifty times it seemed I should have to give up because I was not equal to it. Like a mustard plaster that sun poured down on my shoulders and arms. I felt as if I were being blistered, and I was. Each upper arm and the top of my shoulders above my heavier clothing was burned into patches of water blisters as large as my hand. I can't tell how those wasp-stings throbbed and ached.

It was two and a half hours by my watch, and I was almost insensible, when a faint whistle from Raymond recalled me. I looked down and snapped on the instant, and here is what I got. This in connection with the two fishing pictures of the grown birds are the only real, natural Kingfisher pictures I have ever seen. I could scarcely pack my camera and get my stuff to the cabin. I was red as red flannel, long ago perspiration had dried up, and my flesh burned as with fire. I got into the bath-tub, turned on hot water and took a Turkish bath until perspiration started again and I sweated the heat out of me. Then I dressed my blisters and went to bed for the rest of that day. But never again have I been able to bear that degree of heat for that length of time.

Whatever it cost, it was worth while. The picture is one of my finest, and I got some mental impressions on that day, of the swamp in the quarry and across the road, and of the line of the river, which I now could reproduce to the least detail. I could catch every breath of movement among the willows and poplars. There were water rats riffling the pool, and snakes weaving among the grasses. All birds of spring were busy everywhere. The Red-winged Blackbirds, there were myriads of them, seemed especially to delight in swaying on the rushes and splashing in the water. It appeared to me, up on that embankment, in the

merciless heat, throbbing with wasp-stings, burning with thirst, blistering with sunburn, that those pesky birds took great joy in bathing with exaggerated slop and splash. Just for one insane moment, after the shutter closed, I had an idea of throwing myself into that pool and splashing also. And then it came to me that in my condition to enter cold water meant death, so I waited and took the further punishment of the hot bath, or I would not to-day tell the story of what I did with the Kingfishers.

KINGFISHER FLATS

"He laughs by the summer stream
Where the lilies nod and dream,
As through the sheen of water cool and clear
He sees the chub and sunfish cutting sheer.

His are resplendent eyes;
His mien is kingliwise;
And down the May wind rides he like a king,
With more than royal purple on his wing."

—*Thompson.*

CHAPTER XI

The Yellow-Billed Cuckoo: Coccyzus Americanus

IN SMALL THICKLY LEAVED TREES

BROODING CUCKOO

I love the Cuckoo. In this taste there is much good company, for I could quote, to the length of a chapter, poems and songs by lovers of the bird. Traditions concerning it are almost as old and as mixed in fable and legend as those of the Kingfisher. It is an individual bird and its characteristics are sharply outlined. It is a bird that has been slandered by writers learned in the lore of books, but wholly lacking in knowledge of the woods and the actual habits of birds.

There are charges against it of depositing its eggs in other birds' nests, as do its European relatives. Surely in the length of my life I have looked into as many birds' nests as any other one person, but I never saw a Cuckoo egg that had been deposited with any other species. It is charged with destroying the nests and young of other birds; I never have seen a suspicion of this characteristic in it, and I have yet to meet a real natural-history worker, *of the woods,* who has. It is accused, by writers who should know better, of having a filthy, repulsive nest and badly

soiled surroundings. This would be to advertise its location widely, and one of the most prominent characteristics of the bird is its power of concealment, its secretive habits.

Two of my most beautiful Cuckoo nests were on the Hale farm, one of them being pointed out to me by Mr. Will Hale the same day he led me to the Kingfisher's location. This nest was in the crotch of a scrub elm, about twelve feet from the ground, in a thicket on the bank of the little lake opposite the Kingfishers. I do not know what bird originally built that nest, but I do know the Cuckoos never did. The structure began in the sharp parting of the branches, and was one and a half feet in height. Some of the sticks used in its construction toward the top were the thickness of a lead pencil and three feet long. Mr. Hale told me the nest had been there several years. The Cuckoos spread a handful of their fine twig nest material in the bottom and pulled a few dry pussy-tails from the willows and they were ready for nesting. I photographed the nest when it had three big pale greenish-blue lusterless eggs in it, and it made an interesting picture.

Possibly from making use of abandoned nests, as in this case, the Cuckoo gets some of its bad reputation. On Mr. Black's lease, in the last five years, I have seen perhaps a dozen different Cuckoo nests and photographed many of them. In a little red haw-bush, not three feet from the ground, Mr. Black found the lowest of these nests and the most characteristic. It was a mere handful of twigs, loosely laid flat on seemingly the slightest foundation, and dropped into the numerous interstices were maple blossoms for lining.

In all some half-dozen of the most beautiful nests were recorded because they contained an unusual number of eggs or for some reason which seemed to me good. I worked for days about a half-dozen more containing young birds up to the day of departure. And in all that time I never saw a hint of droppings on

or around the nests, and on all of the dozen negatives, which include liberal portions of surroundings, not a soiled leaf can be seen.

I stated in the introduction that in cases where the young were similar to their elders and I had secured studies of them when well grown, they would be used in preference to the grown birds, because as a rule ten people out of every dozen who care for birds prefer these unusual pictures of the young. Cuckoos are in this list, but they should be taken out. In this instance I don't use the pictures of the young for that reason. I should be most proud to publish a reproduction of the grown Cuckoo, as I never have seen one and should regard the picture an achievement. I have tried and tried, times without number, but so far I always have failed. The very nature of the bird makes failure in his case almost certain.

In the first place, their location makes a snap shot impossible, and in the second their nature makes a time exposure equally so. They always choose a secluded location where experience teaches them that most likely they will be solitary. They select the thickest place they can find, where leaves grow in masses, for their nest. They are not so unfriendly. One can approach quite close, but in the dense shade and surrounded by leaves as they are, a picture is not possible unless time could be given, and it could not, for the instant one pauses, the bird is gone with exactly the same motion with which a big black water-snake glides from bush to bush in dense underbrush.

Jacob Studer says the Cuckoo is a "slipper," and the term fits him to the life. He is indeed a slipper. The word seems coined to describe this subject. The Brown Thrush can not equal him in the graceful art of vanishing in deep shrubbery. So I never have secured his likeness.

The Cuckoo always is associated in my mind with deep,

TYPICAL CUCKOO NEST

"A mere handful of twigs, loosely laid flat on seemingly the slightest foundation, with maple blossom lining"

thickly leaved, cool places, where moss and wild flowers cover the damp earth, where silence reigns and solitude is unbroken. It is from such places that the weather prophet booms his never-failing predictions of rain, which for this reason sound so startling. I think of him as very near to the heart of nature, slipping gracefully through his green haunts, and colored like the young tree- and bush-stems, and the half-faded and withered leaves about him. Never a feather out of place, and what delicate shades of color make up his suit!

There is a hint of leaves in the greenish satiny reflections on

his gray back. There is a touch of cinnamon brown on his wings. His tail is a work of art, the two gray middle feathers being twice the length of the outer ones, which are black, tipped with white, and taper down gradually to the pointed middle. Underneath he is snowy white, with bluish silver reflections on his throat. His bill is long and graceful, curved at the tip and broad at the base, the upper mandible grayish brown and the lower yellow. His hazel eyes are quick and beady-bright, he drops his yellow lids in a roguish way, and his feet, slaty-blue with two toes front and two back, are as trim, clean and graceful as the rest of him. At the knee he has the long Hawk-like feathers of his species. His head and body are slender and beautifully proportioned. When on rare occasions he comes to the light and the sun strikes his greenish back, reddish wings and the delicate pale blue of his throat, as an example of exquisite coloring, I should not know where to turn to choose a bird that can surpass him.

This is a treat one rarely gets, for he keeps to the underbrush. Where that fails him, he interrupts his flight at every small tree. On the ground he seems at a loss to use his feet with ease and trails his wings and erects his tail in a comical manner. He is always eating; a spider here, a larva there, and caterpillars all the time. He is provided with a flexible gizzard, lined with hair, which makes possible the eating of this worm which is rapidly destroying our fruit; so a Cuckoo is worth many times his weight in gold in any orchard.

Of all the young birds I ever have pictured, baby Cuckoos are my favorite. I can not tell how exquisite the coloring of the fine silken throat-feathers and the shades of the back are. The big hazel eyes, the graceful beak, the slender feet,—the whole baby immaculate and trusting, tender and gentle of disposition to surpass any birds I know. They climb out of a nest on your fingers and all over you, coo and peer as if fear or distrust never

existed. All you have to do to make a study of them any way you can think of is to hold out your hand,—they will climb on,—and place them on a branch face or back to the camera. They will sit any way, and look perfect pictures of trust and confidence while they do it. I always carry food about with me, and if I am working long with young birds, and they grow hungry, as they do with amazing rapidity, with a little paddle I feed them a few bites. I give baby Cuckoos the yolk of hard-boiled egg. When feeding them I moisten the egg with saliva. They are crazy for it and will pose indefinitely if they get a bite once in a while.

With Cuckoos the whole process of family affairs is individual. They can confide four and five nestlings to a piece of architecture more rickety than a Dove's nest. The mother is erratic about her laying, but begins incubation with the first egg. As a result the brood strings along, and before the last of the first clutch is out of the nest, eggs of the second are deposited. In any event, the babies leave one a day, and the difference in their size and feathering is surprising. I have seen nests containing a brood with one ready to fly, one half-feathered, one covered with sheathed feathers, and a freshly laid egg.

Up to the day of leaving the nest Cuckoo babies are the funniest little fellows imaginable. Their bodies are covered with a tough leathery black skin, and each coming feather is incased in a black-pointed shield. This gives them the appearance of little porcupines. If you touch the nest at that stage they crawfish, erect those spines and cry,—a reedy little whine of a cry that is distressing. They know they have no business being touched in that condition. When the hour to leave the nest begins to approach, all in a twinkling these shields burst and the leathery little black bird becomes a thing of delicately-shaded silken attire and assured tone of voice.

Once this sudden emerging of the Cuckoo baby struck me

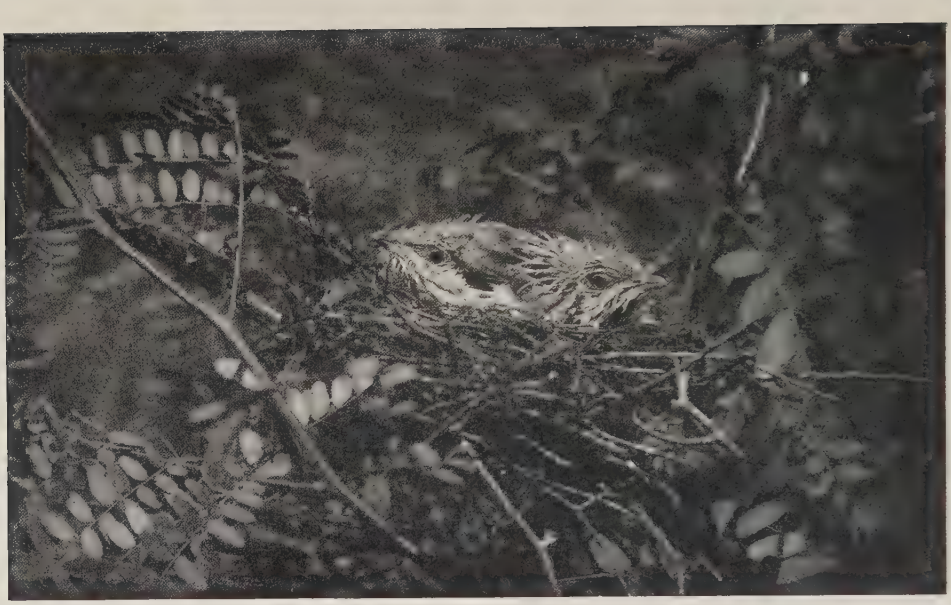
as so comical that I made a series from a pair of nestlings to illustrate it. The birds hatched in a thorn thicket on the river-bank on Mr. Black's lease. Two had left the nest and we knew that the other two would go the next day. I arrived at the lease at nine o'clock on the morning of the first of August, 1901, and made my first study of the series representing the evolution of the Cuckoo. Not a shield had opened on the baby, but on the elder a few were breaking across the back of the head and breast.

At three o'clock that afternoon only two or three shields around each eye were left on the elder, and the baby was almost feathered. Both of them were clambering around on the edge of the nest, but settled down into it that night and were sheltered by the mother. At nine o'clock on the morning of the second not a shield was to be seen on the elder, and just a few small ones about the eyes of the baby.

At this point in their careers they climbed all over me and the thorn tree, ate the egg, and posed until I was out of plates. They were the softest of plumage and the sweetest of disposition of any young birds I ever had handled. They had no sense of fear and made no effort to fly. They did not even stand up, lift their wings and try them, as do so many young birds. Bob said, "Well, aren't they 'most too good to be true?" And they were. I can not guarantee that they would be so good for every one, but if any natural-history devotee wishes to try, here is the receipt.

Use plain common sense. Approach the nest slowly, and when the young begin to cry, imitate them so that they will think you a kindred thing. Always carry suitable food, and the instant any baby opens his mouth, have ready your little paddle well loaded with egg, quite moist, and drop the food carefully into him. Then the others will follow suit.

Feed them several times, with a half-hour's wait between, to get them accustomed to you. Take them first in the nest, then if



IN THE NEST AT NINE A. M., AUGUST FIRST, 1901

ON LIMB BESIDE NEST AT THREE P. M., AUGUST FIRST, 1901

ON LIMB NEAR NEST AT NINE A. M., AUGUST SECOND, 1901

you want to scatter them a little, or to take a pair, hold the food out of their reach and coax them to it. If they won't come, leave them alone until the next day. When they are ready to desert the nest, they will follow egg, properly prepared. If you want to set them in some special place, never pick them up and pull them by main force. If they are in the nest they will grip with their feet and wreck it. If they are on a limb you will almost pull the tender little things in two. Slip your fingers into the nest and gently work them under their feet. The little toes will clasp firmly around the fingers and by moving slowly, avoiding noise and being gentle with them you can do what you choose.

I have been told by nature workers and read in many books that it was impossible to take a young bird from the nest, put it back, and have it stay. I should not advise any one lacking bird sense and years of experience to try it; but I have done it all my life, and never in my life have I failed to put back a young bird taken from a nest, and it always stays. This may be due to the fact that I never try to lift a baby from a nest unless it knows me and will accept food from me, and I am sure I can manage it. I should not dream of walking up to a nest of young birds and attempting to touch them, without preliminary acquaintance. Of course they would jump, even if they were not ready to go for days.

If any one having a prejudice against the Cuckoo will enter its dim, leafy haunts, make friends with it until he learns at first hand its habits and nature, cultivate the young to the handling point, and come away without being a Cuckoo enthusiast, he is a very queer person.

In June of '06, after this book was in the hands of its publishers, Mr. Black said to me, "There is a Cuckoo nest you should see on the Aspy place."

"I have more Cuckoo nests now than I ever can use," I answered.

"But this is different," insisted Bob.

"Different in what way?" I questioned.

"Two," replied Bob. "This pair has fixed over that Robin-nest that was in the thicket before the cabin last year. It is so close to the ground you can take it from a tripod, and one egg is fully one-fourth larger than any of the rest. Doesn't that tempt you?"

"Yes," I said. "It tempts me to try just *one time more to make a study of a brooding Cuckoo.* I never before had a nest where I could work on it from the ground. That is half the battle. Then the little plum-tree the Robin-nest was in is on the edge of the thicket next the cabin. The light is good in the morning. You have been going within a few yards of it for water three and four times a day and they must have become accustomed to you while they were repairing the nest and depositing the eggs. If you want to do something for the good of the cause, educate Mother Cuckoo until you can go where I would want to set a camera without once causing her to desert."

"I'll do it!" said Bob.

"You'll do it!" I jeered. "Yes, it will be so easy!"

I had as nearly given up photographing a grown Cuckoo as I ever give up any bird of my territory. I was in the midst of the busiest and the most aggravating season of field work I ever had experienced on account of constant June rains, and I confess I forgot the Cuckoo and did not even go to see her. A few days later Bob came to me.

"I can go within fifteen feet of that Cuckoo and go through with as many motions as you would to take a picture," he said, "and she sticks!"

It would have been impolite to tell so old and trusted a friend to my work that I could not believe him, but I scarcely could.

Taking a tripod I drove east to the Aspy farm at once. It was about seven o'clock in the evening.

The old cabin around which a brood of rosy, happy children once romped now stood doorless, windowless, floorless and deserted, just across the road from the orchard where so many highly-prized studies had been obtained, and beside the open, sunny clover field of the Bobolink. What once had been a front yard that was a gentle little woman's pride and care now answered no description save thicket. A big cottonwood in one corner had thrown up a thousand rank sprouts; so had cherry, peach and plum trees. Cabbage and bride roses had spread to masses; honeysuckle, creeper and grape-vines clambered everywhere, and striped grass and day lilies filled in the interstices.

The path Bob traveled to water his horse was worn smooth and following it around the bushes to the well I could see a new trail leading through knee-deep grass between the thicket and the cabin. A few steps brought me in sight of the nest. The location was even lower than I remembered it, and while the plum-tree really belonged to the thicket it stood on the very edge next the clover field and the cabin. The clipping of three little twigs would be all that was necessary to get the best light there could be on the beautiful brooding bird.

She was of the black bill variety and the instant she saw me I paused and waited a long time. Then slowly, and with greater caution than I ever before used, I advanced until I stood at the place where Bob's trail stopped. There the tripod was cautiously set up. Then slipping off a long gray cravenette, rolling it up and placing it as I would a camera I went through every motion necessary in making a study of her. She watched me steadily, but never moved. Had I brought a camera, had light, and the intervening twigs removed, she could have been photographed then. A little clipping was imperative, and thinking it over I decided

PROVING THAT MOTHER CUCKOO WOULD BROOD WHILE I WORKED BEHIND HER

that she would return to her nest in the evening sooner than in the morning, when she would have left once to bathe and drink; so I went back to the carriage, got my clippers and approached the nest again, just as cautiously as before. She left at about ten feet. With all possible speed, cutting not a twig that was not necessary, I cleared the foreground and hurried away.

That night the nervous strain was so great I could not sleep and the next morning I was at the cabin as early as there was light and tried to approach the nest with tripod and camera. At fifteen feet Mother Cuckoo simply vanished. There I stood sick with disappointment. The previous evening had made me too sure. There was nothing left to do but vanish myself. Thinking it

over I realized in bitterness that it was a large mistake to go early and try to approach her so soon after she had been from the nest for her morning exercise. Late that afternoon I went back again. The light was directly in the face of the lens in case I got a chance to set up a camera, but I wanted to accustom her to the process.

It seemed to me I took an age to go from the well to a spot as close to the nest as possible. I never wanted to make a study of a bird worse, and so worked in greater trepidation, and with greater caution than I ever before used on any subject. That shy, slipping, deep wood thing—if I only could get her! She let me set up the camera, and focus on her, so I shaded the lens, made a time exposure and left without causing her to desert. That night I made up lost sleep, for I felt that "I had the hang of it now and could do it again."

Next morning, instead of going early, I waited until eleven o'clock, which was as late as I dared risk the light; then with the same deliberation and caution I approached her again and made three exposures, each time slipping the camera a little nearer. She sat, as brooding tree birds always do, on the point of her breast. Her tail was toward the lens and her head at the farthest side of the nest. That was not a position I would have chosen, but it was a very good omen that she would stay when she was headed toward the thicket. Had she brooded facing me, she would have been compelled to make an impulse in my direction in order to reach the deep shrubbery, and she would not have liked to do that.

The next morning I went an hour earlier, moved up to ten feet, and exposed two more plates in the same attitude. The following morning she was in a beautiful position, sidewise toward the lens, showing her outline from beak to tip in one elegant sweep, her black bill, her red-rimmed eye, and the exquisite shadings of her silvery throat and the bronze of her back and wings.

She was all of twelve inches in length. I set my teeth hard to keep my heart from jumping out of my mouth and exposed a twenty-six plate the fiftieth of a second. Then I took it over at a twenty-fifth, for fear the first exposure might be short. And there she sat!

At my feet lay a plate-holder that fits inside my camera. There were more time-plates in it. Should I? With all deliberation I turned the camera front toward me, inserted an enlarging lens and turned it back. Then almost breathlessly, if any one wants excitement! I began walking that tripod toward her. First I would reach through under the camera, and tilting it back a little, set the front leg forward six inches, then each of the side ones in turn. At last I was so close I had to use the extension front almost full-length to get her in focus and she never flinched as the shining big glass eye came sliding toward her. If she was frightened she gave none of the usual signs, for she crowded no lower in the nest, nor did she plaster her feathers any tighter to her body. She brooded lightly and easily and looked exactly as she did before the camera ever was placed near her.

When the first exposure was made the sun was shining brightly. One little spot of light struck the top of her head and another her shoulder. I inserted a second plate, lengthened the exposure and waited as motionless as possible for over fifteen minutes, until a cloud I could see coming up obscured the sun just enough to wipe out those spots of light. Then came the exposure I had coveted for years, the picture used as the frontispiece to this book; but my fingers are crowding on the keys of my typewriter in my haste to acknowledge that I owe it entirely, as I owe so many of my best studies, to the kindness of Bob.

I knew of no way to better that last exposure, so I inserted a fresh plate, stepped up beside the camera and said to the Cuckoo "I want a study of your nest showing your big egg now. Won't

you leave, girlie?" She made no movement to go. One more step brought my face level with her. I lifted my hand and gently stroked her wing. Then she stood in the nest and looked down to see what was there, exactly like a brooding hen. I gave her the slightest little push and she hopped to the edge of the nest. That broke the spell of the brooding fever which had bound her and she was lost in the thicket. And I would have given much to recall her, for her first nestling was just struggling through the shell. That explained her conduct. I had approached her at precisely the psychological moment, when, knowing she had not been harmed previously, she would stay. There was no use for a study of a nest with so small a bird in it and I removed my camera without waiting to close it or take it down. Before driving away I took a last peep and she was back in the nest and just settling to brood again.

READY FOR THE MERCIES OF A WORLD NONE TOO TENDER

"But soft! mine ear upcaught a sound,—from yonder wood it came!
The spirit of the dim green glade did breathe his own glad name;—
Yes, it is he! the hermit bird, that, apart from all his kind,
Slow spells his beads monotonous to the soft western wind;
Cuckoo! cuckoo! he sings again,—his notes are void of art;
But simplest strains do soonest sound the deep founts of the heart."

—*Motherwell.*

A FROG IN HIS THROAT

CHAPTER XII

The Blue Heron: Ardea Herodias

IN THE GREAT LAKE REGIONS

I saw this Blue Heron for myself, hunted him to his favorite feeding-grounds alone, and secured these studies of him, which may be the reason I am so especially fond of them. I was located at a small boarding-house on the Inland Route, and with my boat had access to a half-dozen lakes and rivers which make up this chain. The little river nearest us opened shortly into a large lake. From my room Blue Herons could be seen sweeping the water morning after morning and settling in one spot, which seemed easy to locate. The Deacon probably had good reason to be nervous about my entering those swamps and forests alone. But one day he was away trout-fishing; Molly-cotton was trying, under the instruction of the landlady, to prepare a pair of deer

horns for mounting, and I slipped away to search for the haunt of the Heron.

The row up the river was delightful. For once the veil of nature was lifted everywhere. I could see as far as my eyes could penetrate, and even the water hid no mysteries. The air was clear and cool, touched with the odor of balsam, and sweeping in light breezes. The sky was a great arch of blue, with lazy floating clouds, and the sun not too ardent in his attentions. On either hand the marsh was teeming with life. There were tracks along the water edge where deer and bear came down to drink, small water-rats and beaver lived along the banks, and in the rushes were Duck, Teal, Plover, Heron,—every kind of northern water-bird you could mention. This river was the first of my experience to give up its secrets. The bed was white sand, washed of every impurity by a swift current, and the water was pure and clear. At a depth of twenty and even thirty feet I could see every detail of the bed.

I have not time to tell of its wonders and mysteries in mineral formation, and its dainty growing vines and mosses. But the water folk! If you never saw such a spot you can not dream how beautiful it is. The flowers along the bank and the birds and butterflies of the air were not more gaily colored than the fish of that little river. Every shade of silver was striped and mottled with green, yellow, blue and red. Pike that looked half as long as the boat shot past or darted under it. Big black bass, the kind that wreck your tackle and keep it, swam lazily unless moved to a sudden dart after small fry. There were a few rainbow trout, innumerable speckled perch, shad, and the most beautiful big sunfish. Occasionally an eel, monster turtles, sometimes a musk-rat and a few water-puppies came slowly into sight and as slowly vanished. Oh, I could not row very fast on that river! And it was no wonder Herons and Cranes stalked with slowly-lifted feet

along those banks, no wonder Kingfishers poised above that water by day, or that 'coons flattened themselves and lay immovable while they fished for frogs by night, for all of them could see their prey plainly and know exactly how to capture it.

I pulled into the lake, took my bearings and made for the point where the Herons seemed to congregate. On reaching it I found the remains of an old saw-mill. The shores of all these northern lakes and rivers were dotted with them a few years ago. There was an oozy landing-place on sawdust foundation, and the old mill was due to collapse in the first hard wind-storm. I pulled the boat up on the landing and entered the mill, which was just a shed, the floor half covered with water. Many boards were lacking, but enough were left to shelter me, and quietly creeping to the back end where the mill had been built over the water on purpose to float in logs, I saw a sight.

The rushes had grown up through what formerly had been a bed of sawdust, until they almost reached the mill. In this rotten sawdust there seemed to be a big white worm, of which the Herons were fond, and how they did gobble frogs! Undoubtedly the old mill was the attraction for both frogs and birds. The story was told in nature's plainest writ. The sun shining on the water-soaked sawdust raised a sweetish sappy odor. This odor attracted flies and other insects in myriads. The insects in turn lured the frogs. The frogs made a feast which called up the Herons, and the Herons furnished subjects for my cameras. Inside the old mill, so close I could almost reach out and touch the actors, I interpreted these "signs."

Surely I am qualified to tell how a Blue Heron catches frogs. There is no hunting; his prey comes to him. The great birds, some of them over three feet in height, came winging across the lake, selected the spot from which they wished to fish, and with as little noise as possible alighted. After looking carefully about

him, each bird would move several yards, stepping high and with great care, flattening his body and slipping between grasses often taller than he was. When he had selected a good location he stood perfectly still, mostly on one foot, and his long slender leg looked so like the cattails and rushes as to be unnoticed; folded his wings tight; drew in his neck; pointed his bill at an angle of about twenty-three degrees before him, and went to sleep,—apparently.

This was queer hunting. I wondered if it could be possible that those Herons left their nests in the tall timber across the lake, came over there behind that old mill and stood up in the water among those rushes to sleep. The first pounce that was made straight in front of me startled me so that I almost cried out. After a lifetime of field work I can not suppress a sort of breathless snap of an "Ow," when I am surprised, and it is a cry to which a bird rises every time. I just saved myself. The thing was so unexpected. There stood the Heron, a big fine fellow, the light striking to brilliancy the white of his throat, wet with dew from the rushes, and the deep steel-blue of his back, and bringing out sharply the black on the flattened crest and the narrow line down the front of his throat.

I had not seen a frog climb to the sawdust in front of the bird, so intent was my watch on him, and so tremblingly was I setting up my camera and focusing, in an effort to get everything just right and avoid his seeing me slide the camera before the opening beside me. I was wondering if he possibly could hear the shutter, or if the plate could be changed before he did something more interesting than sleep, when snap! just like a machine, out shot the Heron's neck, clip went his great shear-like beak, then it pointed skyward, crest flat, the frog was tossed around and caught head-first,—one snap, two, it was half-way down the gullet of the bird, whose beak was drawn in, crest flared and chin raised, before I recovered from my surprise enough to remember

that I held the bulb in my hand and must squeeze it to secure the picture.

In a flash I shot in the slide, whirled over the holder, set the shutter and drew the slide. The bird had turned and moved several feet toward me, and more in the open. I set the focus by scale and snapped again. That time in my eagerness I moved out too far, he saw me and away he swept, several of his fellows nearest following. I put away the plates and focused on the spot where he had been. It seemed sufficiently sharp for a good picture. Developing the plate proved that it was almost as nice a piece of work as I could have done if blest with plenty of time.

Then I glanced over my background. For a Heron picture it scarcely could be improved. The mill stood in a little bay. Behind it the rushes grew in a tangled mass, the body of the lake swept up close to them, out in the water a couple of runaway logs were bobbing in the sunlight, and away in the distance a far shore showed faintly. There was only one thing to keep me from having fine natural-history pictures. The bird was dripping with the heavy dew of the swamp. But if I had his head sidewise, with its bill and one eye, and the frog going down, surely that would not hurt my picture. In fact, thinking it over, it seemed to add to the naturalness of it and help portray the damp, swampy atmosphere.

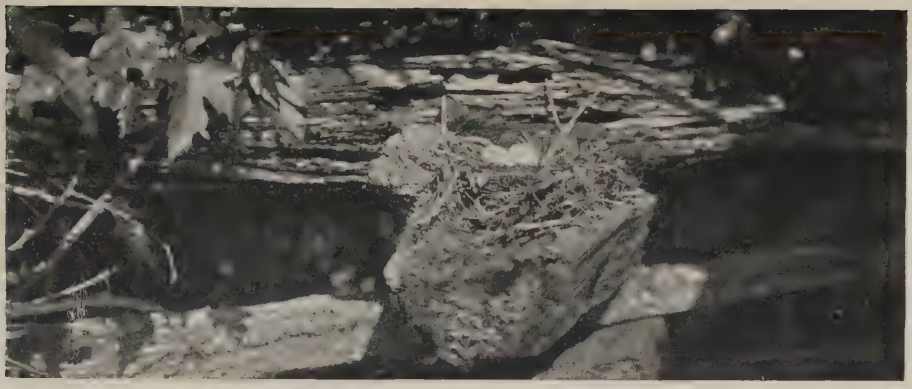
Then I heard voices and splashing of water and remembered that I was a runaway. I caught up my tripod and carrying case, tumbled them into my boat, pushed off and jumped in, not a minute too soon. I pulled well out into the lake just in time to clear a crew of a half-dozen coming around the shore driving a log float and gathering up stray timber. When well away from the float I put away my paraphernalia, set a small hand-camera in reach on the seat before me and started back down the river.

The day had grown a little warmer, but that was made up for

by rowing with the current, and after entering the river I need not pull; but by steering could travel quite as fast as I wanted to go. On that return trip my first muscalonge showed himself. Really, in the water it looked as long as my boat. The fish must have weighed fifty pounds. It was only a little way in the river mouth, bewildered, no doubt, by the clear water, and it turned almost beneath my boat and went back. A magnificent big fish it was. My attention was called to it by the commotion caused among small fish darting in all directions to escape it.

On my way back I had a shot with a small hand-camera at a Heron on wing, but it was so far away that developing the plate disclosed only a little speck on the sky. I tried some Plover and a Duck with better results, but that is another story. This one is of the Blue Heron, and is one of my best pieces of work, quite by myself.

INDIAN RIVER PLOVER



NEST OF DOVES ON THE FENCE OF ASPY ORCHARD

CHAPTER XIII

The Mourning Dove: Zenaidura Macroura

IN DEEP WOOD

This was one of Mr. Black's original forty nests. It was the most beautiful Dove-nest of all my experience. Five rods south of the Cat-birds, on the same fence, the Doves had located. They had laid a foundation unusually sure on the flat surface of a top rail, where the rails cross at a corner. Almost every day in field work I wish that color photography had come into actual, practical, every-day use. This structure and its surroundings made me wish for color more fervently than usual.

The fence was very old, in fact, such a deep steel-gray as to be almost black, veiled in a delicate mist of lint and well covered with crimply lichens running the whole color scheme of gray and green. The nest, as you will observe, is not a typical Dove's nest. These birds are famous for their careless architecture, a handful

of coarse twigs artlessly laid in any thick shrubbery or evergreen being the rule. Frequently I have been able to tell whether a Dove's nest contained eggs or young birds by standing under it and looking up through the bottom.

This nest was built of fine material, and, no doubt to make it inconspicuous, everything used in its construction harmonized with the shades of color in the rails, until at a distance the nest, seen on a level with the rail, looked like a knot in the wood. There were two delicate, opalescent white eggs in it, as is the rule, and all around it and overhanging it was a thicket of maple sprouts.

I have made studies of Doves' nests in March, when there was a skiff of snow on the ground, all the way through the spring and until July, and in every location, and of every construction imaginable, but this was the most perfect picture and the most individual piece of architecture I yet had seen. I always have had a good opinion of Doves. They compel that by their charming characteristics and absolute harmlessness. These Doves gave me a deeper respect for the whole species by proving their sense in constructing this nest.

Had they piled on this rail a rough little heap of their ordinary construction, I should have said, "Doves' usual work! It's to be hoped the eggs won't roll out!" Before that nest I held my breath.

"Oh, Bob," I cried. "Oh, Bob! Do you see what they have done? Do you see how they have kept to the coloring of the fence and built to look like a knot-hole, just as surely as ever Flycatcher did?"

"By Jove!" exclaimed Bob. "That's a fact! I didn't know they had that much sense."

Neither did I. But now that it is proven, my estimation of the

whole species rises. It is things like these, just little things, which set nature-students wondering. Had these Doves built their usual structure, ornithologists would say it was instinctive. When they leave all traces of the building of their species, and fashion a compact nest of unaccustomed material, resembling in color the fence on which they build it, what shall it be called?

I watched these birds to see if in any other way they differed from the rest of their family, but could detect no trait unusual to every Dove I ever had known. From a grassy couch under a big winesap closest their corner I studied every feature of their daily life and found them just common Doves. They were no bigger than the average Dove, their plumage was the same, they ate seeds to gluttony, their wings whistled when they flew, they were closer the river than the road, yet they preferred to bathe in the dust. The male verified every specification relating to him as to constancy and tenderness. He stuffed his brooding mate until she was compelled to refuse more food, and loved her until he almost pushed her off her eggs.

He always preceded the feeding process by locking bills in a caress, then stroking her wing, then a bite and another caress and locked bills at parting. When she would not take any more, close against her as he could crowd he perched on the rail until she frequently had to push him away to keep her carefully-built nest intact. I did love to watch and study them. I was waiting until brooding had progressed a week or so before beginning a series of pictures of them, when Bob met my carriage with a long face.

"Our Doves are gone," he said.

I could only repeat, "Our Doves are gone?"

"Yes," said Bob. "Aspy turned the cattle into the orchard this

morning and the very first thing they did was to get into that shrubbery and pull a limb across the nest and tear it up and break the eggs."

To that sort of thing a field worker must become accustomed. But I did not realize just what I had hoped to do with those Doves, nor the extent to which I had counted upon them for something fresh and characteristic, until the dainty little nest and the pearls of eggs lay trampled and broken at my feet.

Here is another point for nature students. Having had bad luck in a low location and seen their nest torn down by browsing cattle, what did they do? Go somewhere else and build another nest as low, from instinct? They followed the line of the fence down to the river-bank, and, at the height of at least twenty-five feet, they built the highest nest I ever saw constructed by Doves. It was in the branches of quite a large hickory tree.

So there was no "series" of these Doves and no pictures of the young. A week later, however, Bob told me that across the river, in the woods pasture, he had found a nest the preceding day with a pair of Doves in it certainly old enough to fly. We rowed across and found them still there.

These Doves had homed in a brush heap so old that the limbs were rotten and covered with a tangle of wild rose and grapevines. I remember that the grapes were in bloom. In fact, so vividly is every surrounding of each of the studies in this book photographed on my memory and sensibilities, that, though it is January and a white world as I write, I can scent the pungent grape-bloom and a rank succulent odor of green things crushed under foot, and hear the bumbling of bees and the lusty challenges to combat of a pair of Brahma roosters separated by two miles of space, just as I did when working with these Doves.

The young were not so near ready to fly as Bob had imagined. That day we photographed them in their nest, which was typical, the merest little handful of twigs imaginable. They could scarcely cling to it and a heavy wind would have wrecked it quite. Two days later we found them sitting side by side and made a study of them. I very nearly said we induced them to look characteristic, but come to think of it, they would look that way in any event, and we neither could cause nor prevent it. In my experience a Dove is always a Dove. If I should see one involved in an affair of honor with any other bird or pulling feathers from his mate I should think he had eaten wild parsnip-seed and gone crazy.

As we worked about these nestlings from away back in the deep cool forest came continuously the mournful "A'gh, coo, coo, coo," of the old Doves. No wonder early ornithologists thought fitting to name them Mourning Doves. The same idea has become so ingrained with us that it is a protection to them. Even careless children respect the supposed grief of Doves, as they would that of humans.

As a matter of fact there are no happier birds. They emerge in pairs, grow up close as they can keep together all day and crowd tight against each other at night. With them there is no eager unrest and search for a mate. Excepting while the female broods, a circle of three yards would include both of them three-fourths of the time, even in flight. Often on wing I have seen a male Dove forge ahead a little too far and turning cut a circle around his mate and come up closer to her. They are of such quiet disposition and inconspicuous coloring that they escape many of the dangers which brilliant, self-assertive birds call upon themselves.

Always there is an abundance of the seed they love best to be had for the eating, their crops eternally are stuffed to gluttony; always it is easy to find dust for bathing. Always they are together, tender, loving, and in reality cooing in an ecstasy of supreme content about it all. Mourning Doves, indeed! One might well covet such mourning as theirs.

"They emerge in pairs and grow up close as they can keep together"

COWS AND THEIR FEATHERED NAMESAKES

CHAPTER XIV

The Cow-Bird: Molothrus Ater

IN THE PASTURES

The sky was cloudless and the air was still. The dust lay thick on the country road. There were so many cicadas reveling in the drowsy heat and so many thirsty tree-toads calling for rain that it was as if one cicada and one tree-toad traveled with you, singing all the way. To the north lay fields of velvet-green where young clover quickly sprang to cover the brown stems of the lately-mown crop; dull tan where the timothy that now packed swelling barns had grown; gold stubble thickly dotted with the sheaves of garnered wheat; waving blue-green seas of unripened oats and the jade-colored blades of growing corn.

Above the shorn fields the Larks flung down an interrogatory, "Spring o' the year?" as if they feared to state for fact a matter which might be open to question. For the season had been peculiar. Winter had lingered late. Then the spring rains set in, cold and prolonged so that the leaves had been unusually slow in

opening and the birds had been forced to build low for shelter and later than ever before. Half these Larks had lost their belated broods in the garnering of the harvest and now they hung disconsolate above the shorn fields uttering querulous cries. Beneath them restless Shrikes gathered grasshoppers for half-fledged broods. On the cross-rails the Song Sparrows piped bravely, and from fence-corner saplings the Goldfinches questioned of every passer, "See me?"

To the south a sinuous line of giant sycamore, tulip, ash, maple and elm trees and the lapping purl of water marked the river near at hand, while the rattle of my Kingfishers and the splash of wallowing carp told the story of affairs of importance going on there as well as in the fields. Though it was mid-afternoon the prickly heat held unabating. The patch of red backs under the oak at Stanley's line fence meant that the herd had been driven from grazing, and bunched together, were lazily chewing their cuds and fighting flies. A flock of Cow-birds circled over and about them, snatching up insects their stamping feet drove from the grass or boldly foraging on their glossy backs.

Patience picked his way slowly and each foot fell with a soft, rhythmic pat that raised a small cloud of dust. The lines swung loosely from my fingers as I sat on the edge of the seat and with roving eyes searched for "studies," from my Vultures from over in the Limberlost, hanging a mere speck in the sky, to the hare scudding across the stubble or the winnowing of grasses that told of a snake sliding down to the river.

At Stanley's Bend, Patience neighed sharply, pricked up his ears and broke into a swinging trot. The beast found intelligence and voice to show its anxiety to reach Bob; for Bob meant to him

rest, shade, water, grass and Gypsy, with whom to make friends. And to me Bob meant the best person of all to whom to appeal for help, for "the birds know when the friend they love is nigh," and despite the deafening explosions of the gas-engine, the steady rumble of the balance-wheel, the creaking of the turning-table, the rattling rod-lines, the constant wash of the streams of crude oil that poured into the great black tanks, and the sharp metallic click of the valves as it gushed through the pipe-lines, the birds clustered about Bob until there were a half-dozen there to every one on any other lease along the river.

Paradise on the Wabash meant Bob's lease to me. I always stopped when passing and almost every day there was some wonder in store for me. For the birds trusted Bob, just as men trusted him, were unafraid just as women were unafraid, and loved him as little children everywhere loved him. Patience left the road, crossed the grass to the tree he liked best and stood lipping the bark or watching down the path. I lay back on the seat and closed my aching eyes. The horse neighed sharply. There was a clear whistle and the bark of a dog in answer; a second later the pointer leaped the fence and came dashing down the path to touch noses with her friend. Then a man's head came to light among the bushes, his shoulders lifted above the bank; with a spring to equal the dog's he cleared the fence and came hurrying to the carriage.

As I watched him a warm wave of gratitude swept my heart. Bob always had understood, and there were so very few others who had. I had found such various people in my work. Of the land-owners about the country many had opened their gates, laid down their fences, and given me freedom to go wherever my subjects called me. Some had left the plow and harvesting to assist

me. Some had merely tolerated me, letting me shift for myself, others had closed their premises against me and others had charged me an enormous price for driving down a lane they used every day themselves.

But among the oil-men it always had been different. Whether I came in contact with a millionaire lease-owner or a ditcher in a trench, the mere fact that I was a woman and trying to do something about which they could help had been sufficient. Some of them had understood my work and some had not, but in no single instance had one of them ever failed to do anything in his power or show me royal courtesy, and of them all Bob was king.

Without a word of salutation or apparent notice he walked straight to the little black and began knotting the hitching strap around the tree. As his hands moved a big diamond gleamed in the light. I knew Bob, but you never could tell about an oil-man if you didn't. An elegantly dressed individual might be a promoter with capital so nearly atmospheric that he lacked the price of his dinner, and a begrimed creature in jumpers and sweater might be a capitalist whose automobile waited in the stubble of the next field while he inspected his holdings.

"Is there something for me?" I asked.

"There is," replied Bob.

He lifted the camera, picked up the tripod, ordered Gypsy to remain with the rig and led the way down the path, through the boiler house, where the exhaust pipe uttered deafening shrieks and the ground trembled with the throbbing of the big black monster, past his brooding Quail and Wood Robin, past his Blue Finch and Song Sparrow down to the nest of his Black-masked Warbler.

NEST OF INDIGO FINCH CONTAINING EGG OF COW-BIRD

"But I thought we agreed not to disturb her until she had brooded at least a week," I objected.

"Look!" said Bob, and kneeling, he bent back the wild plum bushes and brought to light the daintiest of little grassy, moss-covered cups. It contained only two of the beautiful Warbler eggs that had been in it the day before, and two big eggs with a white ground finely dotted with purple.

"What does it mean?" questioned Bob in rank disgust.

"Cow-birds," I answered. "When did you first notice this?"

"Early this morning," replied Bob. "I heard the Warblers fretting and went to see if a snake or squirrel was bothering them. Two of their eggs were gone and those two big speckled things in their place. Make your study quickly if you want one, for I am going to smash them."

"Oh, no, you're not, Bob," I pleaded. "I wouldn't have you touch that nest for a farm. Those Warblers just have begun brooding and the Cow-birds have disturbed them all they will bear already. We will slip away quietly and you guard that nest as you never before guarded one. It is most uncommon for a Cow-bird to leave *two* eggs in a nest, and if they hatch, with those tiny Warblers, why then, we shall have a picture worth talking about."

"But will the Warbler brood on them?" protested Bob.

"Hasn't she been on them all day?"

"All day," growled Bob, "and nothing but waiting for you ever kept me from pitching them out. I don't see how a bird almost as big as a Blackbird ever laid in that tiny nest, and what became of the Warbler eggs?"

"The Cow-bird ate them," I answered. "She disposed of one each time she deposited one, though how she managed to drop an egg in that nest without breaking the Warbler's is a mystery."

"I easily can break hers, right now," volunteered Bob, with

that twinkle in his eye in response to which his discerning mother named him Bob Burdette.

"But you never will, Bob," I coaxed. "What you will do is to stand guard and make sure they hatch, and, in the meantime, find me the rest of the Cow-bird's eggs. She will lay two more, possibly three."

"What!" cried Bob.

"I said you would find me the rest of her eggs and we never will touch these, to make their hatching doubly sure, but we will make our studies from the others."

"Well, wouldn't that freeze you?" marveled Bob, mopping perspiration. "I'm going to do it!"

"Good boy!" I applauded. "I know you don't very well like the job, but this is our chance for something really rare. The Cow-bird will come back to-morrow, at the same time she did this morning and select the nest of some deep builder, so if you are on the lookout you are almost sure of seeing her."

Next morning Bob sent me word that the Cow-bird had imposed an egg on his Vireo and to come quickly if I wanted a study of it. I knew exactly what that meant. Bob uncovered in front of his Vireo nest. The little mother Vireo was so dainty, so delicate, and so softly colored! Her beak was elegantly shaped, her back pale gray, her breast white and her ruby eyes so wise and so trustful, and her confidence in Bob, who passed close by her many times every day, was implicit.

Of all the dozens of nests Bob had located, there was not one so exquisite as this Vireo's, for at the branching of two elm twigs, no higher than my head, she had built a pendent cup lashed to the limbs by bits of string and hair, wound securely round and round and even carried to near-by limbs. When it was solidly

NEST OF VIREO CONTAINING TWO EGGS OF THE BUILDER AND ONE OF THE COW-BIRD

timbered, securely fastened and softly lined, to Bob and me, who had watched its progress, it seemed complete, but the little bird-mother, with exactly the same loving impulse that is in the breast of a human mother when she adds lace and ribbon to her baby's cradle, set about gathering heavy, rough, snow-white cobwebs and festooning them over the outside until the nest looked as if dipped in ocean foam. Then she stuck through these webs a number of fantastically-shaped little dried, brown, empty last year's seed-pods as a finishing touch, and Bob took off his hat.

He said she was a lady and no gentleman would stand before her covered. He fairly worshiped the delicately colored, jewel-eyed little pair and their exquisite cradle. Concerning them he

was squarely on the ground of Nuttall, who said that, "wantonly to destroy these delightful aids to sentimental happiness ought to be viewed not only as an act of barbarity, but almost as sacrilege." Knowing what the destruction of a single Vireo egg meant to Bob, I went with all possible haste.

He was angrier even than I had feared, for the Cow-bird had eaten one Vireo egg and, in depositing her own, cracked another. He had a little bowl-shaped paddle whittled out and ready, and on my advice scooped out the broken egg, lest it soil the contents of the nest in bending down the limb. We tied the branch securely and in a short time the two Vireo eggs and the big speckled one were on record. Scarcely had the shutter clicked when Bob scooped out the Cow-bird egg, dropped it on the ground and vindictively set his heel on it. I shuddered to think of the picture he was spoiling by not letting that egg hatch, but there was no use asking him to leave it. There are times when Bob can say no, and he had reached the limit when he left two Cow-bird eggs in the Warbler's nest.

"I'm glad that's over," said Bob, drawing a long breath. "I'll not stand having this little gray soul pestered again. If that Cow-bird comes here to-morrow I'll take my shot-gun and blow her to atoms."

In a few minutes the Vireo was on the edge of her nest, peeping inquiringly into it to see what had happened next, and it really looked as if she ruffled her feathers with satisfaction as she settled to brood on her two eggs.

The next morning, Bob kept his word and stood guard. He did not see the Cow-bird; but following his line of nests down the bank, when he thought all danger to the Vireo was over, found that this bird of brass had made a house-warming party all by

herself and laid the *first* egg in the newly completed nest of a Song Sparrow in a wild crab. While he awaited my arrival he noticed that the little father and mother Sparrow were working feverishly, and when we reached the nest a new floor was laid over the Cow-bird's egg, a Sparrow egg was deposited and the mother was brooding. That made four eggs for the Cow-bird, and we figured that it would be the last, but the next morning Bob saw her sneaking up the opposite river-bank with such elaborate caution it made her conspicuous.

She entered a thicket of wild rose and blackberry that contained no nest of which we knew, so he did not follow her. But wonder as to what she could have been doing there kept filling his mind, so he stepped into his boat and started across the river, just in time to see her leaving the thicket in what appeared to be a frenzy of excitement, and Bob decided that she had found a place to deposit her last egg and was rejoicing over the successful placing of her family.

He entered the bushes and located the nest of an Indigo Finch that he had not suspected was there. There were two of the delicate opalescent eggs of the Finch and the last egg of the Cow-bird, still warm to the touch. Again there was a hurry call and the study was a beauty. Bob unceremoniously dumped that egg also.

He heroically stood guard at the Warbler's nest and every few days we speculated as to what would happen there. Suppose all four of the eggs hatched. Would those dainty little Warblers be able to supply food for the Cow-birds and their own babies also? Would they feed their own and starve the strangers? Or would the beaks that could open widest and lift highest get all the food and the Warbler babies be trampled under foot and die of hunger?

THE PAIR OF YOUNG VIREOS

These questions soon were settled. All four of the eggs hatched, and although the Warbler babies should have been out first, we were amazed to see the Cow-birds emerge the same day, thereby clearly proving that they required several days' shorter incubation than the young among which they were placed. The Cow-birds were three times the size of the Warblers in the beginning and filled the nest. They crowded from the first. Scarcely was their down dry until they lifted sturdy big heads, opened cavernous mouths and the clamor for food began.

The tiny specks of bugs and worms that the Warblers were able to collect made little impression on their ravenous appetites. All day their heads were up and their mouths wide open. All day those little Warbler parents darted hither and thither, nervously searching for food to satisfy the greed of the foster children thrust so unceremoniously upon them, and if their own succeeded in securing a tiny morsel, really it was by accident, for they were

so buried from sight and their feeble cries so drowned in the lusty clamor of the Cow-birds, that their end seemed apparent from the first. The smallest Warbler had no chance at all and in a few days Bob lifted him from the nest with my hat-pin, dead and trampled flat, and I am afraid he "said things" when he did it. The beak of the remaining Warbler did not reach the butts of the Cow-birds' wings when he raised his wobbly little head and joined his voice in the hunger-cry which went on all day, but some way he got just enough to keep him alive.

INVERTED NEST OF SONG SPARROW, SHOWING WALLED-IN EGG OF COW-BIRD

The old Warblers seemed to feel that the continual cries from their brood were an imputation on their housekeeping, and they raced about pitifully, taking time neither to bathe nor eat enough themselves. Soon they were mere shadows. But day by day the Cow-birds waxed fatter and fatter and their cries grew more vociferous. Day by day the Warblers grew thinner. The baby's crop hollowed until it was drawn from sight, his eyes sank deeper and he grew more patient.

Bob's only relief was to watch his Vireos thrive. There being

but two of them they were unusually well fed and grew to remarkable size and beauty. Every time he approached the nest the proud little father came turning somersaults through the air and inquiring with true pulpit oratory, "Do you see it? Do you hear me? Do you believe it?" and Bob with bared head and worshipful eyes said that he did. One day he found them on the edge of the nest and sent for me to hurry, for he not only wanted a picture of them, but when they went it was near time for the Warblers' queer brood to go also.

I arrived just in time to secure a study of them, and soon they were gone. But it was not until three days later that Bob found one of the Cow-birds on a limb and the other on the edge of the nest, and both of them so stuffed that by no possibility could they point their beaks straight front over their swollen crops. The Warbler was fully feathered. There was not a trace of down on him, and by every right he should have been the first to leave the nest; but he crouched down as if enjoying his first comfortable breathing-space, and clung to the nest as if he could not move. His crop and eyes were sunken, his beak and feet pale, and his throat anything but the bright, healthy color it should have been. Starvation was written all over him. There seemed to be nothing of him but a little bunch of bones and abnormally developed feathers. His plumage almost curled.

The largest Cow-bird climbed to the edge of the nest and stuck there and the other stayed on the limb. I tenderly lifted the Warbler and set him between them to contrast their size and plethoric condition with him. They never attempted to fly, but opened wide beaks and raised cries for more food, though where they were to put it one couldn't see. Bob said to them, "You little boogers! I know what you'd get if I were engineering this." I made several exposures and carefully put the Warbler

back into the nest, where he remained all day, the Cow-birds staying in the same bush.

Then came the baby Warbler's picnic. All day the old ones alighted on the nest first when they came with food and if he was ready he got a good share before the vociferous cries of the Cow-birds called them away. The next day he had so improved that he could move about the nest and the Cow-birds, fat and sleepy-eyed, flew to a near-by walnut shrub, where I made a last picture of them. Next day I couldn't find them and when I remarked that they seemed young to join a flock of their kind, Bob looked so peculiar that I lost no time searching.

"Where do these things belong?" he asked as we gathered up my paraphernalia from the last trip. "Are they protected?"

"They belong to the Blackbird family and they are," I answered. "The law makes two classes,—wild and game birds. The section referring to unprotected birds reads, 'House Sparrows, Crows, Hawks, and other birds of prey.'"

"Well, if Cow-birds are not birds of prey, I'd like to know what you'd call them," said Bob. "Have you figured it?"

I had not, but here is Bob's summing up of the situation.

"I do not know how many there are in the Stanley flock, but the other day I counted over two hundred at Shimps'. It's fair to presume that half of them are females. Now here is one female that we know in one season has killed three Masked Warblers, two Vireos and one Blue Finch. If each female of her flock has equaled her record that makes six hundred of our most harmless, inoffensive, dainty, beautiful little songsters wiped out and if all Cow-birds average four eggs apiece there are four hundred of them instead. And Cow-birds are ugly, their little rasping 'Cluck-see-ee!' is no song; instead of rustling for insects that need to be exterminated they sit on the back of a cow eating

flies from a scratch; why, sling-shots and the millinery trade are innocent compared with them! They should be exterminated!"

"I think so myself," I said, "but I suppose it is like Blue Jays and Cat-birds, the lawmakers see no way to discriminate against them."

"Well, just you watch me give the law a little valuable assistance," said Bob. "There won't be any Cow-birds in these parts next season."

I have watched with interest. Since that summer not a Cow-bird flutters over Stanley's sleek herd. There are none at Aspy's adjoining, nor down the river far below Shimps', and Bob's birds raise no foster nestlings.

PAIR OF YOUNG COW-BIRDS

CHAPTER XV

The Cardinal Grosbeak: Cardinalis Cardinais

IN SMALL TREES AND BUSHES

YOUNG CARDINALS

Early in my field experience with a camera, coming in from the east one day I found the body of a Cardinal Grosbeak lying in the dust just at the entrance to the river bridge. I stopped and picked him up to keep passing horses from trampling his dead body, and as I drove home with him lying on the seat beside me my feelings were outraged. The brightest bird of our Indiana ornithology, an incomparable singer, one frequently to be seen about our fields and forests throughout the winter, a seed-eater that seldom spoils fruit, enough of an insect exterminator to make his presence valuable anywhere,—and he lay there limp, his bright head never to lift again, his brave song never to enrich summer music and

impoverish all other winter singers,—and for what? Merely to prove that some fiend with a gun could drop a shining mark.

Always I have been the devout worshiper, the true lover of this bird. By the time I reached the cabin, *The Song of the Cardinal* had been sung in my heart. I immediately set about gathering notes and searching for nests from which to make illustrations for the protest I had planned. Never having seen a photograph of a Cardinal, either male or female, and because of the disposition of the bird, I realized I would have to attempt a thing which no one else had accomplished. As I scooped a grave deep in the orchard, laid the bird in and covered him with leaves before I packed in the earth, I vowed to make the name of any man who would kill a Cardinal repulsive to humanity.

The first thing was to find nests. Bob, the man on our farm and several oil-men were enlisted in the cause. During the next three years studies were made of over a dozen Cardinal locations. I wanted a perfect, typical nest with a full clutch of eggs, a series of the young; and grown birds in every conceivable attitude which would display their beauty, their devotion to their mates, their fiery dispositions and their chosen environment.

I am qualified to speak of the Cardinal as of no other bird, having had three times the experience with him I have had with any other. I did not despair of securing the studies needed to illustrate the book I was planning, because when I was a child a pair of Cardinals had built a nest near the ground, on a flat cedar limb, not six feet from my father's front door. The remembrance that it had taken me only a few days so to become acquainted with them that I sat by the hour on the stoop, watching with a child's broad sympathy every detail of their relations and home life, was my comfort now. If I could win a pair of Cardinals to trust me

NEST OF CARDINAL GROSBEAK

"A little firmer than the usual Cardinal construction, typical of the best sort"

then, surely it could be done again and the camera introduced as well.

In the third year of my work, when material was rapidly shaping for the book, a suitable nest-picture was lacking. In a search for moth cocoons in the valley of the Wood Robin a delighted cry from my invaluable assistant, Molly-cotton, brought me quickly. She had found for me the typical nest, exactly what I wanted for my series, and you should have seen her shining face when I told her so.

The nest was four feet from the ground, not far from the Wood Robin's location, on a brush heap overgrown and covered in a thick mat with wild roses, grape-vines and blackberry bushes. The roses were in full bloom, and their delicate blossoms were close over and about the brooding mother. The nest was a little firmer than the usual Cardinal construction, typical of the best sort, the lining of dried grass quite thickly woven and cuppy, the four blue-white eggs mizzled and mottled all over with brownish and dark lavender specks, no two of them exactly the same color, and one egg, undoubtedly the first, quite perceptibly larger than the others. That told the story of a young bird in her first brooding, and, as a pullet sometimes does, she had surpassed herself with her first egg. With the securing of that nest my series was complete, for I had sufficient material for every other illustration needed. Studies of more or less value had been made about almost every one of the nests located by others or myself.

I chose for the hero of my story a male Cardinal, undoubtedly a stray in Indiana, for he certainly was the big brilliant "redbird" of Kansas and Iowa. I could not carry him through the illustration—a half-dozen different Cardinals had to be worked in for that—but I got him several times alone, so that he dominated

the work and the others used did not look so unlike him as to attract the attention of any one reading for the story.

As described in the book, this bird really was "the biggest, reddest Redbird" ever seen in these parts. His home, in a thicket of sumac, on the bank of the Wabash River, was on the Brown farm northeast of the village of Ceylon. Cultivated fields came close to the bank, inclosed by an old snake-fence; a few feet of grassy ground was covered by sumac, wild plum, red haw, thorn, spice brush, papaw and vines of every native variety; then the embankment sloped sharply down to the water which sparkled over clean pebbly shoals. For a mercy we were undisturbed. The location was farther both from my home village and from Ceylon than boys playing at the river cared to walk; the water here was very shallow, so that bathing and fishing were impossible, and I never left my carriage anywhere near the nest, but approached it always from the river, so that workers in the field would not see me and investigate.

He was not only the biggest and reddest, but his beard was the blackest and the longest,—witness the reproductions,—his crest flared the highest, his song was the mellowest and he was the tamest of all my Cardinal birds. It would interest no one to know how many plates I spoiled on him; in three instances I caught him squarely, and at his level best, and that paid for all failure, time and expense.

These pictures were secured by cutting off a living limb on which he was accustomed to alight in a pause before he reached his nest and substituting a dead branch in its place. He never seemed to know the difference and soon it became a favorite resort with him. He liked to sit there and be sprinkled during a light shower.

MALE CARDINAL SINGING

"I know of no other bird that, in the stress of mating-fever, rocks, trills, lifts his wings, turns his head and so displays his passion and his power"

It was the finest place in the world to fluff and dry after his morning bath. No other spot was so to his liking for a sun-bath.

The camera was concealed in the thick leaves of a papaw bush a few feet away, a green strip was bound about the shining brass of the lens, the camera was covered carefully with leaves and the exposures made with a big bulb and long hose.

A detailed story of all the time spent about these Cardinal nests would fill a larger book than this, but a few incidents may be interesting. There was no way to photograph a Cardinal without a nest to lure him. How then was I to bring the big bird, from the big egg I had found to account for him, up to his first mating? I simply had to send him south, and as Cardinals migrate, especially the young in their first winter, that was all right. I thought seriously of going to Florida and trying my luck, but I was overwhelmingly busy. How I did crave a shot at that crimson bird on a waxy-green orange bough! There was a nest location from which I had made several good pictures, for the Cardinals had preëmpted the sumacs on this stretch of riverbank for years, and there was plenty of sumac setting. But how was a Cardinal ever to be found alone on something that would answer for a southern tree for the opening of my story?

Watering plants in my conservatory one day I snagged my wrist on the thorn of a lemon tree. That solved my problem in a hurry. Before night the tub containing that tree was worked into the Cardinal's surroundings, covered with moss and grass, and the tree so arranged that a good-sized limb replaced the perch on which both male and female alighted on entering the nest. The birds are accustomed to having all paths, save their trackless one of air, changed with every passing wind-storm; it was a limb

and green like the other, and was used just the same. Four exposures were made on the male bird there before that device was removed. Three of them were fit to use, two were better than I hoped for, and one was unaccountably foreshortened so that it was a failure. After my success with the lemon tree, which I thought so like an orange as to answer, that perch was changed almost every day to give a thread of continuity to my illustration.

A cardinal is a strenuous lover, his attachment to his mate being unusually strong and his fighting capacity equal in force to his affections. He shows no mercy on a rival and spares no attention to his mate. He is a splendid singer and vastly proud of his vocal ability. I know of no other bird that, in the stress of mating-fever rocks, trills, lifts his wings, turns his head, and so displays his passion and his power. As never before I found in him material for studies which were reproductions of character indeed. Yet do the best I could, my likenesses of this vivid bird always seem pale and small to me when I think of the pictures he made there in the sumac, living out his life of joy and freedom.

All the studies one could wish of young could be secured about these nests as easily as those of any other birds, but Cardinal young are a special temptation. There is lure in their deep hazel eyes, flaring crests, important carriage and their red-tinted feathering. A pair of them makes a picture hard to surpass in attractiveness.

I have followed several pairs of birds throughout one season and made more or less complete series of them, but the Cardinal is the only bird I have followed season after season and through days and weeks of unceasing labor of the hardest sort, and I have done it in the hope that what I might write and tell would work

for his protection. He is our brightest, bravest bird, and not only are field and stream enriched by his summer music, but our winter woods in the gray days and in the biting cold resound with his cheery whistle, and, oh, how we need every winter singer!

"And, oh, how we need every winter singer!"

"What cheer!
What cheer!
That is the Cardinal Grosbeak's way,
With his sooty face and his coat so red.
Cheer! cheer!
What cheer!
Oh, all the world shall be glad to hear!
And the nightingale
Shall fail
When I burst forth with my freedom-song
So rich and strong."

—Thompson.

Taken on February twenty-seventh, with camera on library table, through heavy plate glass. Robin on the bench on veranda, snow six inches deep on the ground

CHAPTER XVI

Robin: Merula Migratoria

IN THE DOORYARD

I learned to love the Robin when, as a child, I sat on my father's knee and he pointed out to me the russet-breasted bird, singing from the top of a cherry-tree during a spring shower, and taught me to mark the accent and catch the exquisite inflection of tone as the happy bird sang, "Cheer up, dearie! Cheer up, dearie! Cheer up! Cheer!"

He told me the story of the Robin that tried to minister to the dying Saviour on the cross and stained its breast with sacred

blood, of how Christ blessed it and commissioned it ever to be the friend of mankind, always to sing to him of good cheer. Of how its eggs are blue-green like the sky above the sea, and how to this day the Robin is man's best friend among the birds, because he would scarcely have fruit crops at all, were it not for the insects it destroys. During the story my eyes were fixed on the dark-gray bird with its bright breast, singing through the rain the words I could plainly distinguish, "Cheer up, dearie!"

We were taught that a blessing came to any home with the Robins and every inducement was extended to them to build with us. The first year in a home of my own there were no Robins. By the second my overtures were accepted and every summer they are sure to build about the orchard, often in the vines on the veranda and several times where the logs cross at a corner under a porch they have set up housekeeping.

Always we have extended to them every protection and assistance in our power to give to a bird. Last year we had a Robin in the wistaria vines on the veranda, and the birds in feeding perched on the logs within a yard of me and flew back and forth across me as I lay in a hammock within a few feet of them. Another pair will find their last year's nest in the mulberry west of the cabin, only needing relining when spring comes again, and a third can return to the elm by the back porch.

But it is of Robins of a few years ago of which I tell, as these pictures are of them. One summer nine years gone a pair of young Robins established themselves in a plum-tree close to the back door. They were birds that had been hatched the previous summer, shy and nervous as birds in their first brooding are likely to be. They attracted my attention by their timidity. I cautioned my household to be especially careful in no way to

alarm them. I noticed the male bird at the well one day drinking water from the boards.

Soon after he left I set out a dark, shallow baking-pan, filled it with water and instructed every one going there to see that it was freshly filled. The table crumbs were scattered by it, and in a few days both birds drank and bathed there and came regularly for food. They did like bread and milk and hard-boiled egg. It was while they were bathing and feeding about that I especially noticed the male. He was the biggest, brightest, most alert and knowing-looking Robin I had ever seen, and I had been accustomed to them almost every summer of my life. Immediately apples and fruit were added to his diet, suet and scraped beefsteak, grubs spaded up in the garden and anything I thought him likely to eat that was not salty. It was amazing the way that bird grew, and he carried food to his mate until she was above the average Robin size.

He not only developed in body, but he grew strong in every way, for no other Robin could come near his vocal powers. His song was the same old song of cheer, but there was a depth of volume, a mellowness of note, a perfection of accent that outdid all other performers of orchard and wood. And he seemed to know it. He would perch on a peach-tree near the plum and sing his opening strain. Then he would pause as if considering it. Then he would repeat it and raise a little louder, fall a shade deeper and cling to his notes until he came to the final, always abrupt. He would think it over again and begin anew and when he had repeated his strain five or six times he was in a frenzy of ecstasy with his own performance, stretching to full height, his throat swollen, his eyes gleaming, every muscle tense, and in all bird-land there was but a faint breath of harmony to surpass him.

And when the rain fell, as if he knew it a blessing and a thing for which to be thankful, with the drops dripping from his gray coat he lifted his golden throat and sang and sang incomparably.

In just a little while he learned that when the pump was used the water would be fresh and cool, and so when any one started toward it he went along and perching on a bush close by awaited his treat. Then he learned that when the master of the house came soon after would appear his table scraps, and so he went to meet him and greeted his appearance with an alert, "Kip, kip, kip! Cut, cut, cut!" Neither was he long in discovering that when I walked about the orchard and pottered among the plants and flowers he always got a piece of ripe apple, fresh fruit, berries or a grub or worm, and so he went with me and talked to me all the way and flew down for what I gathered for him. They raised two broods on the premises and when family cares were over and the rest of the Robins and Blue-birds betook themselves to the deep wood for vacation and moulting they went along, but with the difference that every day, and several times a day, they came winging in from the forest and ate and bathed at the well. It seemed to me that they were with us two weeks after all other Robins had migrated in the fall.

During the winter we wondered about them and speculated on whether they would return, and if we should know them. We were uneasy, for we had laid the foundations of a new home and there would be workmen and noise all summer, and I sadly prophesied that we should lose our birds and have to begin all over again. Late in March the Deacon called me, and, as I stepped to the back door, before he could speak I saw the Robin at the well, our big bright bird beyond all question. We hurried to put out his water-pan and food, and, while the foundations of our home were settling, he laid those of his in the plum-tree again.

NEST AND YOUNG ROBINS

"They changed to a hickory in a little grove by the back porch and nested again"

But the noise of the carpenters within a few feet of him drove him away; and he went down in the orchard, and set up housekeeping on an apple branch that did not seem to me much farther from the building. His music was even finer in quality, and his disposition friendlier than the year before. All the workmen about the cabin were under special instructions concerning him and, just as I thought his brood would come off safely, a new man was put on the gang. I did not notice the man's arrival from the house in which we lived on the premises, but seeing that they were running a veranda on the new house close to the Robin's tree I hurried out for his protection only to meet him coming for me, screaming frantically, "Kip, kip, kip!" and uttering sharp alarm cries.

I ran, but it was too late. His branch had brushed across the face of the new workman as he set up a pillar, and, whirling, with one stroke of his hatchet he slashed through a limb as thick as his wrist and it fell to the ground, tore off the nest and broke the eggs. Any member of that gang is qualified to tell what I say and do when angry. Then I was sure we should lose our bird, but he went up to the front of the lot and located thirty feet high in a big elm and came to the well and for food as usual.

That gang was broken to birds, however, for a few days later the foreman came to the door, grinning sheepishly, and told me that a pair of Pigeons had built a nest at the base of a big chimney, that turned and twisted its way to completion, carrying drafts for five fireplaces, and at a last turn, just as it cleared the attic rafters, the birds had built and laid their pair of beautiful eggs and were brooding and he didn't know what to do.

"Let them alone," I said. "Don't allow a man to touch them."

"But we are going to shingle," he said.

"Then shingle!" I retorted. "You will be fifteen feet above the bird."

"But the siding and shingling of the upper walls come next," he objected. "Shall we pen them in?"

"No, go on with your work just as if they were not there. When the walls are inclosed there will be three windows left, and if you come to them before the birds are gone you can leave out a north one nearest the nest."

A day or two later one of the men told me a pair of wrens was building over a dormer window up-stairs, and we also found a way to give them access to their nest after the building was inclosed; so that two families occupied our new home before we did.

The next season, on the twenty-eighth of February, I was amazed to hear my Robin calling me and looked out to see him on the grape-arbor peering into a back window. It was a moderate day, bright and sunny, but there would come a heavy freeze at any time. It was five weeks earlier than any other Robins would arrive and I did not know what to do. Food and water were hastily set out and he ate and drank as if quite hungry. By mid-afternoon the clouds gathered, a northern wind swept down and snow began to fall. Poor Robin did not know what to do and we did not know either. At last I saw him peering about an old summer kitchen left standing on the back of the lot, and that gave me an idea.

I hurried down, opened a small door in the loft above the door below and shoved back on the rafters a warm box covered with an old coat and hay. I barely had it fixed when the storm broke in fury, and the bird went into the loft. His droppings proved next morning that he had perched in the box as I had hoped. Two days later his mate came and they took possession of the premises and lived in the shed loft at night. Long before the snow was off the ground they were pulling last year's dead dry grass-

blades from underneath it, and on the sunny side of each little hummock working to pick off mud for plaster.

They located where the logs crossed at a corner over a back door and built this nest. A finer piece of Robin architecture would be hard to find. There were no twigs to be used. They couldn't find any. All the material they had to draw on was a very little mud and dry grass-blades. The eggs were laid and Mother Robin was brooding and the rest of her kind had not yet arrived. I kept out a good supply of food, as there was none for them to find, and everything was going well.

Robin sang his heart out from the old shed roof and sunny spots to the south, and his music never sounded so mellow and fine as when no other birds were singing. February might bluster and rave and March empty her watering-pot in icy showers over us, but first in the morning and last at night we were cheered by the voice of our loved Robin.

One morning he came on the grape-arbor in a tumult of excitement and startled me by his alarm cries. I hurried out, but could see nothing to frighten him. I looked at the nest, and his mate was not there. For hours he kept up his flight and cries. Then I took a step-ladder and examined the nest. The eggs were cold, but there was no sign of an Owl or violence of any kind.

Then I started for the shed, thinking some harm might have befallen her there, and ran across a little heap of bloody bones and gray feathers, and our neighbor's cat slinked away licking her chops. She had dined off a bird on our premises that money or time never could replace. I do not care for cats.

For a week Robin mourned his mate, searched and called for her until we were almost distracted with him, then one day his song piped up again, for the south had sent his kind and he was

courting. He really looked apologetic when he flew down on the lawn with his second choice and introduced us. No wonder! She was a young thing, she looked bedrabbled, and she was one of those foolish, jumpy, nervous birds that never will act with sense, because they have none.

If ever a male tried to dominate the choice of a location it was our Robin. I gave up long before he did. He carried grass-blades to the old location. Oh, dear no, she never would enter a veranda. He tried the wistaria. Mercy, she would be killed if she went near it. He dilated on the plum-tree. Shocking! It was entirely too close to the cabin. Then he took every tree of the orchard and the big forest trees in turn, and carried grass-blades, and worked and worked. But no! She was a deep-wood bird, and she was not going to be fooled into any such location.

Sadly he and I watched her select a big hickory across the street, and begin her nest. I honestly don't think she got much help with it, and it is the truth that Robin's song was a failure in comparison with his former efforts. The dear bird loved us. He knew his home, and it seemed to me, even after the new mate was brooding, that he bewailed his first love and his old location as he sang. He did his duty when it came to feeding, but he always came to me to search for food and to bathe and sing.

The next year it was on the twenty-fifth of February, three weeks to the day before the other Robins arrived, that he announced himself at the well. Again we hurried to meet and welcome him. No mate was with him and none arrived later. He was still growing and was an immense fellow. Shortly after his arrival he was attracted by a long-haired white spaniel, a new possession of Molly-cotton's, and he seemed unable to decide whether it was a dog or cat.

Soon I noticed him perching on the back of an oaken bench that stood on the front veranda, its back directly across a big six-foot-square plate-glass window. I sat at my desk a few feet away and he sat there looking at me. He came more and more frequently and stayed longer each time, and at last a heavy snow fell, covering everything several inches deep. Then he adopted the bench back and for an hour at a time would perch there.

Our movements did not worry him in the least and unless the little dog jumped to the deep seat of the window inside he seldom took flight except for food and water. One day he sat motionless so long, while I waited for an idea, that one other than that for which I waited struck me. Why not take his picture?

There sat that blessed bird, now of four long years' acquaintance, through his love for and trust in us, our guest three weeks before any of his kind had come; and the fence in front and the logs of the veranda railing were covered with three inches of snow, the ground with six. Surely that was a picture to materialize as well as to live in the heart.

I polished the glass to the last degree inside and out, set a camera on the library table and focused on the bench back. The shutter was set at a bulb exposure, the long hose attached and the bulb laid on my desk, and time after time I made exposures on him. I had to work against strong light, for there was the snow outside, and his face and breast were in the shadow, but I did my best. I had thought he remained motionless much longer than he did, when it actually came to counting off time in seconds. I couldn't get just as long an exposure as I wanted,—he would turn his head, ruffle his feathers a bit or draw a foot out of the cold. But I got several good pictures that were precious to all of us, for there was the window-seat cushion for a foreground, the

oak bench outside the glass for a perch and three inches of snow in the distance on railing and fence.

And still he awaited the coming of spring and his kind, and no mate came. One night the Killdeers struck the Limberlost at two o'clock; the next the Larks, and a few days later came the Robins, and again our bird went courting. For two days we missed him, and were growing more anxious than any one who has not had a like experience could believe possible; then he came home, and what a bird he brought with him! He was so proud he almost perched on my head as he swept the length of the veranda calling me. I turned to welcome him and there was his mate.

She was almost his size, sprucely dressed and, thank heaven! open to conviction. I could see it in her big, wise eyes, the alert poise of her head and her willingness to follow his choice. Before the day was over she was helping carry twigs to the wistaria, and in an incredibly short time she was brooding, and Robin was back on the bench looking in the window. He seemed content and happy as a bird could be. I guarded faithfully with him, no accident befell the nest, and its brood got off safely. Then they changed to a hickory in a little grove by the back porch and nested again. That nest and its babies were so beautiful I had to make some pictures of it. Mother Robin seemed uneasy, but he paid no attention whatever while I worked.

They stayed late that fall, and the next spring came early as usual and together. Again they built in the wistaria, using the old nest for a foundation, and again they brought out a full brood. For a second nesting they chose the top of the martin box on the windmill and I think they were sorry, for the sparrows tormented them constantly. That year Robin seemed a little sluggish in his flight, he sang much less and with nothing like his first spirit and inflection. And no wonder! For five years the precious bird had homed with us. All the care we could give him

was freely his for the love we bore him. I often wondered what I would have seen could I have followed him south; but however kind every one would be forced to be to him, I always shall believe he loved us best on account of those early migrations, often made alone.

The next year we had swarms of Martins on the windmill, Bluebirds in the bird houses, Song Sparrows in the honeysuckle, and Robins in three different trees, but tragedy or old age had done its work, for all the spring we listened in vain for the voice of our dear bird.

Ready for first migration

"See yon robin on the spray;
Look ye how his tiny form
Swells, as when his merry lay
Gushes forth amid the storm.

Thank him for his lesson's sake,
Thank God's gentle minstrel there,
Who, when storms make others quake
Sings of days that brighter were."

—*Weir.*

CHAPTER XVII

The Blue Jay: Cyanocitta cristata

IN THE ORCHARD

A long-time friend of mine told me that "if I was interested in such a blamed nuisance as a Jay Bird there was a nest in a grape-vine covered scrub elm in a fence-corner on the west side of the orchard." So I turned in at the lane, drove past the machinery sheds, past the garden where squares of radishes, onions, lettuce, poppies and phlox were surrounded by a hedge of gooseberry and currant bushes, past the milk yard, past the big red barn, and down the long lane which separated the orchard from a wheat-field and led on to the creek. This world has no more beautiful spot than that orchard. The great trees were at their prime, there was a thick carpet of waving grass beneath them, an arch of blue with lazy floating clouds above, and around it a lichen- and vine-covered old snake fence, most rails of which housed uncounted tenants.

THE JAY NEST IN THE ELM

Sky-larks from the wheat-fields hung over it and their notes of piercing sweetness rang constantly; Song Sparrows were piping from the fence, and bees droned over beds of calamus in one corner and paid shorter visits to blue-eyed marys and white violets sprinkled all along the west side, where they got the benefit of shade and moisture from the adjoining woods. The Jay could be heard long before he could be seen. He recognized the carriage as something new and sounded an alarm, until he made every bird of the orchard nervous by the time his fence-corner was located.

The Jays had set their nest on a limb of the elm which made a

substantial foundation, and studies of it could be made from a step-ladder. All the material used was the color of the bark of the tree and the nest was quite neat for Jays. It was shaded by masses of wild grape-vines and Mother Jay was serenely brooding when I found her. The first thing was to get the Jays accustomed to my presence in the orchard, and then try for studies of the gaudy brooding bird.

So I sat down under a rambo just across the fence from the elm and studied Jay character. Before finishing with those birds I found that they had character in plenty, but of a kind scarcely compatible with the peace of other birds. Sooner than I expected, the racket Father Jay made at my intrusion ceased, no doubt because he was too busy protecting his mate from the Hawks of the woods to bother with me; so I moved closer.

I had hard work to concentrate my attention on the Jays, despite all a series of such well-known and characteristic birds would mean to me, for to the Lark's call and the Sparrow's lay were added the notes of the Killdeer down at the creek, the scream of Ganders busy guarding their feeding flocks, the gobble of the Turkey-cock from the dooryard, the boasting of the big Brahma Rooster over by the barn every time a Hen came out and announced that she had laid an egg, and June at her prime was oozing from all the earth, air and sky.

The thing which caught and fastened my attention on the Jays was when the male suddenly screamed, "D'jay! D'jay! D'jay!" and then gave almost an exact imitation of a Hawk's cry. Looking up I saw one of those great birds sweep from the woods across the orchard. Right there the Jay paid the farmer his "keep," and in a measure atoned for his meanness to other birds; for at his warning every chick of the Yellow Dorking catching grasshoppers in the orchard took to cover with never a cheep;

"A baby thrust its head through its mother's breast feathers, laid it on the rough edge of the nest and went to sleep"

and where a babel of bird-voices had commingled before that cry, not a sound was heard afterward. Even the Lark hurriedly dropped to earth and was lost in the wheat.

But Mother Jay stoutly stuck to her nest, and presently her mate came slipping through the trees and went to her to learn if she were all right. It did not seem possible that the strident rasp of that warning and the tender softly-modulated rejoicing in which he now indulged could come from the throat of the same bird. His every action proclaimed that he had come to tell her how he loved her and that she need never have a fear while he was on guard. Surely that was what he told her, though to me it sounded like, "Chinkle-choo, tinkle, tankle, tunkle! Rinkle, rankle, runkle! Tee, chee, twee?" Then he flew to the top of the tallest tree of the orchard and stood guard again.

Gradually I moved up until I stood where a tripod should be placed, and the brooding bird never flinched. Slowly and care-

fully I made my way back to the carriage and with my assistant brought up and placed a twelve-foot step-ladder, and mounted it with great caution, making a long wait on each step. The bird sat so securely I decided her eggs had quickened and I climbed down, moved the ladder nearly under her branch, mounted again and cut away grape-vines and small twigs that would be out of focus. That blessed Jay Bird sat there and allowed me to use the clippers on a grape-leaf not four inches from her breast. Then I placed the ladder just right, but it was too low, so I added a mineral-water box and secured it with the hitching strap. Still it was too low, so I emptied my carrying case and set it on the box and then placed the camera on that. Then I focused and made several studies of her. Throughout the whole proceeding, which was not managed with my usual caution toward the last, when she proved so bold, Mother Jay sat, her beak pointed skyward and

"The baby lifted its head, opened wide its yellow mouth and asked for food"

without giving any evidence of fear or indication of flight. Then, because in field work you are never sure of your subject from one day to the next, I secured the nest with its five beautiful eggs.

Next day I went back early, but a nestling had arrived ahead of me, which explained why its mother brooded so constantly the previous day. For several days I called on them and secured some interesting study at each visit. Once while waiting with a set camera and long hose in the hope of securing Father Jay feeding his mate or nestlings, a bareheaded, yellow-mouthed baby thrust its head from under its mother's breast, and, using the hard rough edge of the nest for a pillow, went fast asleep. I gave the bulb one frantic grip and hastened up the ladder to turn the plate holder. I barely had it inserted when a wonderful thing happened. The baby lifted its head and opened wide its yellow mouth against the breast of its mother. For an instant my fingers flew so fast I was scarcely sure I had caught it. The shutter proved I had and in my delight I called to my assistant, "Look here! Quick!"

"Take it!" he shouted. "Take it!"

"Well, do you suppose I stopped to call you to look before I did?" I questioned reproachfully. "I never have seen a picture like that made with a camera or drawn by an artist. I truly believe I have something perfectly new."

"Smart Alec! Smart Alec! Smart Alec!" cried Father Jay, as he came winging into the elm with a worm in his beak, which in no way seemed to impede his utterance.

So to prove him a truthful bird I thrust another holder into the camera and photographed him as he fed one of his nestlings a worm while at the same time Mother Jay removed a cloaca.

In the following days I studied those Jays closely. There

FAMILY CARES

"Father Jay fed one of his nestlings a worm, while at the same time Mother Jay removed a cloaca"

was little new to tell. They did eat the eggs of other small birds, and the newly hatched young as well, and even tore up tiny nestlings and fed them to their babies. They did impose on smaller birds, tormented their equals and acted the coward with larger ones. There seemed no evenness of temperament in them. At one minute they came slipping through the trees, cowards in hiding, and the next gained a sudden access of courage and from the top bough of the tallest tree in the orchard screamed defiance to all creation, bird, beast and human.

The male truly was,

"Mr. Bluejay full o' sass,
In them base-ball clothes o' his."

But he flew to his home base instead of sliding, for he kept his suit immaculate. The orchard was so clean and the creek so near he had no excuse to be otherwise, and he asked none, for twice and three times a day he went down to the creek and bathed and dressed every feather on him carefully, always ending by polishing his beak.

I did want to make a true character-study of him alone,—one that would index him without a label; one that would show him as he screamed Hawk-like when on guard. But I could see no way to photograph him away from his nest, and he was not the same bird near his cradle, when he felt weighted with family cares.

I never get anything by giving up, so I sat down under a winesap in line with the rambo and studied the situation closely. There I saw something. Blue Jay frequently went over in the wheat along the fence and caught small worms and grasshoppers. Every time he came back from the west, he broke his long

flight by perching an instant on a tall stump in another fence-corner surrounded by a growth of hickory and sycamore sprouts.

I set up the camera, leaned two rails against the fence on each side of it, covered it with green leaves and attached the long hose. The scheme worked like a charm. I got three pictures of the full-grown Jay, a rare one with swollen throat as he screamed defiance, seemingly in answer to the cry of an old Gander down by the creek; one with closed beak; and one of the female, all sharp and strong enough to enlarge beautifully.

These studies proved it quite true that most birds select a route by which to come to and leave a nest. If you watch them you can nearly always discover it. Sometimes the female and male approach from different sides, each coming and leaving by its own way. Both these Jays entered their tree by way of the stump, coming from the west; and by way of one certain branch of the rambo when coming in from the orchard. Many other birds follow this custom. The Cardinals I knew best each had a route coming to and leaving the nest, and they never varied from it unless some sound startled them. A pair of Baltimore Orioles I knew well both used the same route in approach and leaving.

On the morning the oldest Jay baby first investigated the apple-tree, I posed him, with his mates, on a maple limb and took their pictures. Some young birds are worse subjects, and some are better, but I seldom have made a finer baby picture. Their colors were similar to their elders, not quite so strong as they would be after a first moulting, and their feather-markings were the same. Their beaks always were wide open, and how Father Jay worked! Every few minutes he came slipping into the elm and fed a nestling, and then left in a great hurry to get another

YOUNG JAYS READY TO FLY

"Two of the nestlings had gone; the remaining three posed with little trouble"

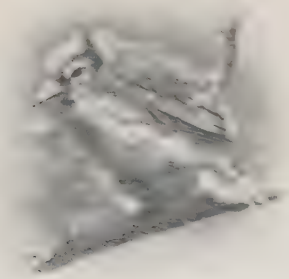
lunch; but he always paused on a near-by tree and called back to Mother Jay, "Fill the kittle! Fill the kittle! Fill the tea-kittle!"

My feelings concerning the Jay are varied. I admit all his bad traits, but there is in his favor the fact that he so perfectly imitates the cries of several birds of prey that he saves many of the woodland folk from Hawks; whether as many as he destroys, I have no way to judge, but I think so. He is for ever guarding the woods, and every bird of field and forest knows his signals and heeds them, to that I certainly can testify; for, lying in hiding, I repeatedly have seen birds take to cover at his warning when it took me some time to discover what was coming; but always he was a true prophet, for something came, either a hunter, Hawk, Owl, Crow, squirrel, snake, or, near houses, sometimes a hungry cat.

These alarm cries are not pleasant, but that the wood-folk heed them proves that they appreciate and are grateful for them. He is a spot of brilliant color about our homes in winter when birds are scarce, and his "D'jay, D'jay!" cry is a cheery and welcome sound, proving as it does that we are not altogether deserted. In courting he carries on a long, low conversation well down in his throat and his tones are sweet and musical. Not only do they use this sweet throaty murmuring in pairs when courting, but throughout the season they congregate in small flocks and have a Jay party.

There is one big maple on the banks of the Wabash, beneath which I have caught a few black bass, where the Jays for years have gathered at intervals for one of their tree parties. At least a half-dozen collect in the tree and perch near together. One begins to chatter, jabber, chuckle and murmur. Another joins him, then the whole company, then one continues alone, several more

join in, and again the whole flock unite in a sweet, inquiring, throaty vocalizing that is music in which I delight. The Brown Thrush chants exquisitely from a thorn opposite: the Oriole flings golden notes on wing: and the clear, strong whistle of the Cardinal carries beautifully with the water: but the undertones of the Jays are a minor melody which fills in the pauses of these star performers with constant harmony.



YOUNG JAY

CHAPTER XVIII

The Humming-bird: Trochilus Colubris

ABOUT THE CABIN

"It soon revived until it could cling to a dead twig on the bush"

When Mr. McCollum sent me word that one of his sons had located the nest of a Hummingbird, I traveled the same road I had gone over a little earlier in the season to the haunt of the Rail. The fact that all nature had advanced a few weeks nearer fruition made the trip none the less delightful. We found the location in deep forest in a small ironwood tree and the nest so little that only by a miracle had any one ever seen it at all.

The tiny cradle was built of lichens lined with chestnut-colored down fine as silk, saddled on a limb about twice the thickness of a lead-pencil, and bound fast with cobwebs. A silver dollar laid on top would have sheltered it perfectly during a rainstorm. There were no eggs, and as it had been discovered ten days before and the tree bent to examine it while the birds had been building, I concluded they had abandoned it. I am sure it was completed outside, but I do not know that it

was finished within. Because it was the daintiest piece of bird architecture of my experience a picture was made of it even if it was empty.

But I have had three real experiences with Humming-birds. The first, when one of them mistook the front window of the cabin for a pool of water, and in trying to fly across it struck the glass full force and fell stunned. I heard the blow, hastened to pick up the bird, and while trying to think what could be done for it I saw that it was reviving and soon it flew away.

Whenever Molly-cotton enters the cabin alone, simultaneously with the setting of a foot on the threshold she always sings out, "Mama!" One inflection she gives that call means, "Are you at home?" Another, "May I go to Bertha's?" and yet a third, which sends me flying at the first tone of it, means a heartbreak. This day came the trouble call, sharply defined as the alarm-cry of my Robin. Molly-cotton stood in the doorway with big excited eyes shining from a background of flushed cheeks and flying hair. On her outstretched palm lay a ruby-throated Humming-bird, both wings wide spread, but making no attempt to fly.

"Doctor it!" she demanded.

Is there anything harder for a mother than falling short of what her child expects of her? I did not know a thing to do for a sick Humming-bird, those daintiest creatures of nectar and sunshine, but as I looked into Molly-cotton's distressed and eager face, I knew I could not tell her so. Of course I realized there would come the inevitable hour when I would not be able to furnish "balm for every wound," but I could not fail her just then, so I temporized.

"Where did you get it? Do you know what is the trouble with it?"

"I gave a boy my soda dime for it and it's hurt with a slingshot."

"Hurt with a sling-shot!" I cried. "He'd better be punished instead of paid for that trick."

"But, mama," said Molly-cotton, "the boy that had it wasn't the boy that hurt it,—that's why I bought it; and," she added with characteristic justice, "the boy that hurt it ran. He was awful sorry. He just shot. He didn't ever think he could hit it. Really, it was an accident!"

"And that is the way almost every song-bird that is shot meets its fate," I retorted hotly. "Men always have to try if they can hit a thing, and when a bird as brilliant as a butterfly or a flower falls they are surprised and so sorry that it is dead. They only wanted to see if they could hit it. It is the old excuse."

Molly-cotton advanced a step and held out the bird. "Well, mama!" she said. "Aren't you going to *do* something?"

"Take it into the conservatory," I answered, striving to collect my wits. First aid to an injured Humming-bird! What would it be? Of course its back was almost or quite broken, from those wide-spread motionless wings, the heavy breathing and the eyes protruding with pain. From a box of abandoned nests a large one was selected with some fine twigs in the bottom, and the bird with all care transferred to it.

Wounded people are always thirsty, so I proposed to give it a drink of sweetened water. Molly-cotton ran for a teaspoon and the sugar, and we held a few drops of sweetened water to the bird's bill. At the touch of it the little creature drank and drank and ran its slender thread-like tongue over the bowl of the spoon, searching for particles of sugar. Every hour that afternoon it was given more. When Molly-cotton came from school she carried it honeysuckle and trumpet-creeper blooms, and when either honey from the flowers or sweetened water was put against its beak it ate and drank.

I confidently expected that it would be dead by morning, but

instead it had folded its wings and before the day was over was clinging to the twigs with its feet. Then I took courage and went to work in earnest. I put it in a cool shaded place and added hard-boiled egg thinned almost to liquid to its diet, and by the third morning it could walk and had climbed up on the edge of the nest. When I saw that, "It is going to get well, sure as fate!" I cried to Molly-cotton.

"It's going to get well! It's going to get well!" exulted the Girlie, dancing for joy.

Straightway she exacted a promise that she should be the one to open the door and give it freedom, which surely was her right. Then she thought of another world to conquer.

The night before Bob had brought me a little reddish-brown mother bat, weighted with four babies clinging to her body, and I was to photograph them that day and put them back where they had been before night. Molly-cotton thought the bat should be fed also. She argued that if she had been free the night before her mate would have fed her and with those four babies to care for she must be almost famished. So I was called upon, in all confidence, to tell what bats ate.

I told her we could not get for a bat, in daytime, what it found on wing at night, but I thought it could do no possible hurt, so I suggested fresh, warm milk. Molly-cotton fished a nickel from her purse and sped to a neighbor's for milk, and I whittled out a tiny wooden paddle. We dipped this into the milk and held it to the bat's nose. She instantly seized it between her sharp little teeth and sucked and gnawed at it. She would not let go, so we took the Humming-bird's spoon and dropped milk a drop at a time on the paddle. That little bat turned up her head and drank and drank like a famished creature.

We had a splendid chance to study her face. It was shaped like a young pig's, only flatter. She had a small, round, flat nose

like a pig's, a face very similar, and ears round like a mouse's, instead of pointed. Her fur was silken fine and of beautiful color. Each of the four babies was a miniature of the mother. When she was quite satisfied she let go the paddle and went to sleep. But until her picture was taken and she was returned to freedom Molly-cotton fed her milk, which she took eagerly at every offering.

Just when we were congratulating ourselves that the Humming-bird was saved came disaster. I do not know why I was so thoughtless. That ability to climb to the edge of the nest should have warned me. The bird tried its first flight and fell from the shelf, on which the nest was placed, five feet to the cement floor and died in a few seconds.

Our next Humming-bird experience was short. I met Mr. Hale on the way to the post-office. "Hold fast all I give you," he said, reaching out a hand. What I got was a Humming-bird lying on its back, its eyes closed, its feet drawn up among its feathers, to all appearances dead.

"Found that among the sweet peas this morning," he said. "It forgot to migrate and took a chill." For it was October and the night had been heavy with frost.

I cupped both hands about the bird and on reaching the cabin could see that it was alive. I gradually warmed it until it opened its eyes. Then I told Molly-cotton to bring me four grains (granules) of granulated sugar, with one drop of tincture of ginger and five of water added to them. We held this mixture to the bird's bill and it drank feebly. In a little while it began to ruffle its feathers and shiver.

Then I sent Molly-cotton to carry my camera to the south side of the cabin, where she had a LaFrance rosebush in full bloom that we had covered during the night. I followed with the bird. It soon revived until it could cling to a dead twig on the

bush, though its tail was tucked, its feathers ruffled and it looked chilly. We were running no risks, so we took its picture. I should have taken the first one while it lay on its back, to all appearances a dead bird.

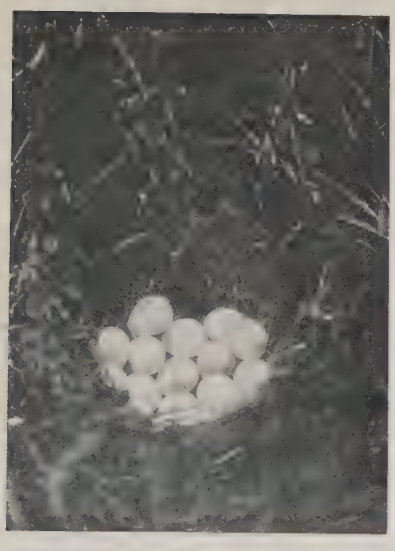
I put in a new plate, and when all was ready Molly-cotton gave the bird another drink, a big generous one. The air was rapidly warming with the rising sun and the bird now revived to the point of feeling disheveled, for it ruffled its feathers, shook them and laid them so they looked quite sleek. The little thing felt very spruce indeed, considering a few moments before, so I made a second exposure. While I was hustling to get in a plate for a third the bird hopped to a twig above it, gave its tail and wings a flirt and with a whizz darted over the nearest trees and in a bee-line, as far as we could follow him, sailed for the south.

THE NEST OF A HUMMING-BIRD

CHAPTER XIX

The Quail: Colinus Virginianus

ON THE GROUND



NEST OF QUAIL
Containing seventeen eggs

With the combined meadows, wheat-fields and orchards of the Stanley and Aspy farms, as well as a mile-stretch of grassy river-bank from which to choose, Mrs. Bob White paid Mr. Bob Black the compliment of coming up within a rod of his engine-house, two yards from his foot-path and selecting her building site. When Bob pointed out the nest to me I was amazed.

The churning of the great engine that furnished power to pump many wells, some of them a half-mile away, shook the earth under her location. The exhaust pipe shrieked until close to it the explosions were deafening. All day long the rod-lines rattled and steady streams of oil poured into the big tanks. Bob, with pointer always to heel, passed over the path many times a day. I traversed it daily, and there was a steady flow of children's feet rushing down to the river to play and back to Bob to borrow fish-lines, corks, hooks, knives,—anything a boy could use along the water.

There came the Quail to brood. I wonder why. Did she like company? Did she prefer to keep house where she could hear sounds and see people? Had she lingered about the place until she had lost all fear of it and hoped in the noise and proximity to people to find protection from her natural enemies, the snake, squirrel and Owl?

Bob never knew the bird was there until Gypsy made a point at her, and then she was brooding on seventeen eggs. The nest was constructed on the ground. The builder had slipped through the long hair-like grasses until she found a slight depression sheltered by a small spray of wild grape-vine. There she sat down and turned around until she worked out a flat bowl-shaped place, from which she picked away the blades of green grass, using the dead ones for lining. The taller grasses closed over her and the grape-vine screened her from the sight of the man, but not from the scent of the dog.

Her nest was a beauty. I like to think she placed it there because she had put herself under Bob's protection. This idea of shy wood-things creeping up to him, because they knew he was their friend and champion, makes me proud that he is my friend also. Those seventeen eggs were freshly laid, bluish white and sharply pointed at one end. The picture they made was a novelty on account of their number.

After we had secured a fair study of the nest we waited for the young. We knew our ornithology well enough to be aware that there was small hope of getting them, for a Quail lays all her eggs before she begins to brood, so that the young emerge at once and travel before their down is quite dry. While we waited for these nestlings I had rare luck in securing two good studies of grown Quail over in the Limberlost, so I did not bother these old ones.

We did not know just how many of the twenty-three days of incubation had passed before Gypsy found the nest, but when we thought the time for the brood to emerge was close I was on hand and ready. A three days' wait made me careless, and the following day I did not reach the lease until nine o'clock. The tailpiece of this chapter shows what I got for my pains. Not much, you think?

That one little picture for ever settles two questions long in dispute concerning the Quail. Many writers will contend that young Quail remain in the nest some time after they emerge. They go before they are thoroughly dry and feed themselves from the start. The proud father, with head feathers flared to a crest and hackle bristling, leads the way, the young follow, the mother brings up the rear. When either old bird sights a morsel fit for the young to eat it calls the chicks about it and with its bill indicates what is to be eaten, often breaking it up so that as many as possible shall get a bite. The young had left this nest so soon after hatching that the shells were warm, and flies and ants were gathering over them, attracted by tiny bloodvessels in the lining.

Also these shells proved beyond question that the mother had gone over each egg at time for emergence and with her sharp, strong bill cut the shell and lining in halves, releasing the young. I had been contradicted so frequently on this statement that I had quit making it, until this nest of shells was found. They clearly show that the work is done from the outside, as a deep rim is bent *in,* the lining *cut* instead of torn, and each shell divided *exactly in halves.*

There was pleasure in proving this point long defended, but I bewailed those babies. So to comfort me Bob said we would search along the river and perhaps we could find them. Neither

of us had much hope, but there were so many other things to find we were sure not to waste time, so we set out. And we did find things, for all nature was very busy that morning. We took a rare butterfly, located a Cuckoo nest, a Woodpecker tree, a Song Sparrow's bush, and found a fine specimen of cardinal flower, which is rare in this locality.

On the way back to the carriage, from under our very feet Mother Quail rose with a whir, and there was a breath of faint peeps. We were in the thick of the seventeen youngsters. I dropped to my knees and began combing the grass with my fingers. The first sweep brought up a tiny ball of fluff with a black striped back and the second another. By that time Bob had one, then I had another; my hands were full of Quail now and no place to put them. Bob came up with a second chick and what to do with them was a serious problem, for their little legs flew.

Just then Bob sighted another baby and in desperation stuffed the two he held into the front of his flannel shirt. I passed over mine and in they went also. Then we hunted Quail by hand. The sun was hot and it was warm work, but we had eight before we quit and that was all we felt we could manage at once. What to do with them became the next question.

The grass was high and there was no chance where we were. I suggested taking them back to the nest. But that was in high grass also. Bob had a better plan. He knew where there had been a Quail-nest in an adjoining wheat-field, beside a big stone. We could have a better opportunity there, and one egg remained in the nest. Also it was close to the carriage and would save moving the cameras far, so I welcomed the suggestion.

I set up the camera, focused on the nest, bent back the wheat, left the unhatched egg as it lay and announced I was ready.

Bob produced the Quail. I held them until he found all of them and then we placed them in the nest. Over the stone and into the wheat they darted like weasels. Two were lost completely before we knew it. Again and again we tried, and there wasn't the ghost of a chance to make an exposure, for our hands would have been the whole picture. At last we were worn out completely. We had just three of our birds left. We carefully put them down in the nest, Bob on one side, I on the other; he holding the babies, I ready to squeeze the bulb or stop one if it ran my way.

"Now let me try," I said.

Bob lifted his hands. Over the stone for the wheat raced the birds. All I knew was that all of them were on the stone when I snapped. Development of the plate proved that Bob had thrust out his hand to stop them and I had taken it, also, although the motion was so quick that neither of us knew it. We both were worn out and made no attempt to try again. I was accustomed to being warm, tired, wet and muddy, but a vague unusual discomfort was stealing over me as I slipped the slide in the holder and packed the camera. What ailed me? I actually was in distress. I glanced at Bob. His face and arms were like red flannel. Was he suffering, too? He didn't look happy. I had a right to sacrifice myself for my work if I chose, but I had no right to punish Bob. I studied him closer.

A million tiny red lice were swarming up his neck and over his face and arms. Only a quarter of a million fell to my share and drove me frantic. I climbed into the carriage and almost killed Patience racing for the cabin. Glancing back I saw Bob come from the power-house with a bundle and run to beat the pointer for the river. I stopped in passing that afternoon to see if he were alive and found him smoking his pipe in a hammock

on the river bank. He said in fifteen minutes after I left, the old Quail were about whistling and calling until they collected their entire brood.

I was sorry to miss that. I think a Quail call, the Bob White whistle, beautiful. It is mellow, musical, inflected to a nicety, and it is always so cheerful and happy. I like Quail love-making, too; those soft, tender little wisps of sound, those creeps and peeps and gently-murmured things. In fact, the only note a Quail makes which I don't like is his alarm-cry, and I dislike to hear that from any bird.

I am sorry our legislators do not put Quail among song birds. Their plumage is much handsomer than some of our choicest singers; they are graceful and elegant on foot, and their music every one knows and loves. Only a note shorter and only a degree less melodious than the Lark, which is of finer flavor as food; yet the soul sickens at the thought of such sacrilege in the case of the Lark,—why not the Quail also?

I love these two birds and I always think of them together. They use the breast of earth in common in the business of living. The notes of their songs are syllabicated the clearest and enunciated the purest of any of our singers. But the Lark is the bird of Heaven, the Quail is of the very earth. Soaring above cloud, the Lark seems to catch the breath of divine inspiration in his notes that enthralls and uplifts the spirit. Keeping close to the dark earth, the Quail draws from it strength and courage, which so tinctures his tones as to renew hope and cheer in our tired hearts and set them singing with him.

"Bob, Bob White! Bob, Bob White!" How beautifully it pipes up from meadow-grass and clover! How it softens and quivers with the passion of mating! How it swells and rings

when flung as a challenge to a rival from stumps and fences! How it comes sweeping in certain, steady tones on the breast of the river! What would summer be to lovers of field and stream without it! How little children everywhere love and try to imitate it! Sip nectar of fruit and honey of flower that you may trill even sweeter, O ye favorites of protecting fortune, or soon this plucky little gamester of the fields will win enough hearts with his cheery whistle to place himself among you!

GENE STRATTON-PORTER.

Limberlost Cabin, March 17, 1906.

Proof that Mother Quail *cuts* the shells of her eggs in halves and releases all of her young at one time